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HOME SAFETY Review

VOL. 14, NO. 6 JUNE 1957

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—National Safety Council

In this issue: "Step and Ladder Safety," see page 23.

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The Home Safety Conference is the meeting point for representatives of national organizations conducting programs that include prevention of accidents in the home. It officially represents National Safety Council home safety service subscriber-members. Conference officers (with the exception of the staff secretary) serve voluntarily without pay as the council's safety officers and planning board for home safety program.

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HOME SAFETY REVIEW

A Magazine for Home Safety Program Leaders

VOL. 14 **NO. 6**

JUNE 1957

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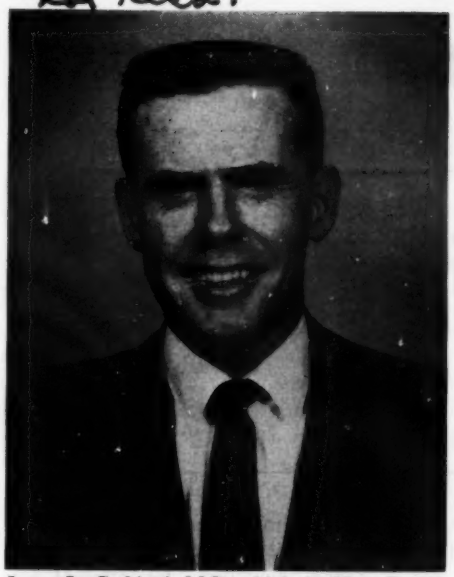


James L. Goddard, M.D., chief, Accident Prevention Program, Div. of Spec. Health Services, Bu. of State Services, PHS, DHEW, Washington, D. C.

PHS Plans Expanded Safety Program

The new program for accident prevention of the Public Health Service, DHEW, is outlined below. A fuller statement from Dr. Goddard will be forthcoming in a future issue of the *Home Safety Review*.

THE NEW ACCIDENT Prevention vention Program of the Public Health Service, created July 1, 1956, is located in the Division of Special Health Services, Bureau of State Services.* The program is directed by James L. Goddard, M.D. Chief of Program Services is Eugene L. Lehr, a sanitary engineer; chief nursing consultant is Jean F. Williams; and Albert P. Iskrant, a statistician, is chief of Operational Research.

Designed to serve State and local health departments through research, consultation, training, and information, the new program will devote much of the current year to planning in preparation for a considerably expanded operation in fiscal year 1958. In addition to its own staff, the program will use the services of personnel assigned by other interested agencies in the Department of Health, Education, and Welfare. A Departmental Advisory Accident Prevention Committee will help coordinate Departmental activities in the field.

Broadening the scope of the former home accident prevention program in the Bureau of State Services, the new program will, through use of the epidemiological approach, concern itself with the basic factors in accident causation and prevention and will enlist the competencies of all the disciplines in public health. The program will also assume responsibility for the former interests and activities of the Division of Sanitary Engineering Services in the hygiene of housing. Special attention will be directed toward developing guidelines and standards for incorporating basic safety and hygienic features into housing structures, including homes for special occupancy.

The accident category constituted the fourth leading cause of death in this country in 1955 and was actually the first cause of death for the age group 1-34 years. More than 90,000 persons died from accidents in 1955. More than 9,000,000 injuries are estimated to occur each year, causing more than 300,000 permanent impairments.

Since accidents are the result of forces from three sources—the host, the agent, and the environment—the public health procedure of epidemiological analysis, determination of causes, development of preventive measures, and evaluation may be applied in studies for preventing them.

Specialists from every field, including that of human behavior, can be used in the studies of the interrelationship of the forces and multiple causes that lead to accidental injury or death.

A 7-point work program has been set up as follows:

1. Collection and analysis of data.
2. Training (inservice, assignment, and formal).
3. Educational and informational services.
4. Experimental studies and epidemiological investigations.
5. Program demonstrations.
6. Consultation to official and voluntary agencies.
7. Aid to health departments in evaluating and setting up statistical procedures.

Other Departmental agencies cooperating with the new Accident Prevention Program are the Children's Bureau, Food and Drug Administration, Office of Education, and Office of Vocational Rehabilitation. Within the Public Health Service, the Bureau of Medical Services, the National Institutes of Health, the Division of Public Health Methods, and the National Office of Vital Statistics are all active in the work of the program.

*This article entitled "Public Health Service Announces New Program for Accident Prevention" has been reprinted from *Public Health Reports*, vol. 71, No. 10, p. 1032, October 1956, published by PHS, DHEW.

Injuries from Power Lawn Mowers

A Survey of Power Lawn Mower Injuries in Georgia in 1955 and 1956*

By John N. McClure, Jr., M.D.
Henry C. Steed, Jr.
Robert M. Alden
J. Clinton Terrell

LAST YEAR at the meeting of the Medical Association of Georgia a paper was presented on the subject of disabilities resulting from power lawn mower injuries [see "Power Lawn Mower Injuries" by John N. McClure, Jr., M.D., *Home Safety Review,* March 1957]. At that time the general nature of such injuries was discussed, and an estimate was made of the number occurring in Atlanta and throughout the State.

In the late fall of 1956, after the lawn-mowing season was essentially over, a survey of Georgia physicians was made by means of a mail questionnaire in an attempt to measure more accurately the number and types of such injuries. This survey was conducted by the Accident Prevention Unit of the Georgia Department of Public Health in cooperation with interested private physicians.

The Statistical Unit of the State health department designed the survey, analyzed the data, and assisted in other technical matters. Briefly, the survey was conducted as follows: In an attempt to obtain significant results, yet keep the cost at a minimum, it was decided that approximately one-half of the privately practicing physicians who were likely to see such injuries should be questioned. Therefore the survey included only physicians in the following specialties: general practice, surgery, orthopedics, plastic surgery, thoracic surgery, neurosurgery, E.E.N.T.,† ophthalmology, pediatrics, internal medicine, and industrial medicine.

*Delivered at the Annual Convention, Medical Association of Georgia, Savannah, Ga., April 30, 1957.

not used.

Table 1.
Accidents Reported, Number and Percentage, by Type of Mower Involved, Georgia, 1955-1956

	Total, 1955 & 1956		1955		1956	
	Number	Per-cent	Number	Per-cent	Number	Per-cent
Total	737	100.0	364	100.0	373	100.0
Gasoline rotary	608	82.5	298	81.9	310	83.1
Gasoline reel	57	7.7	26	7.1	31	8.3
Electric rotary	40	5.4	23	6.3	17	4.6
Type not indicated	32	4.3	17	4.7	15	4.0

It was anticipated that few physicians would be able to supply detailed information on each accident, so a general questionnaire was designed to obtain basic data for the years 1955 and 1956. This questionnaire is shown in figure 1.

Questionnaires were sent to 1,085 physicians with a self-addressed, stamped envelope. Eight were returned because the physicians were not at the given address. Of the remaining 1,079 questionnaires, 468 or 43.4 percent were returned to the health department. Five of the 468 physicians were either deceased or retired; this left 463 practicing physicians who answered.

Power lawn mower accidents were reported by 226 (48.8 percent) physicians while 237 reported no accidents. The practices of many of the physicians who reported no accidents were in specialties which would rarely, if ever, be called upon to treat such injuries.

†Eye, ear, nose, and throat.

It is to be emphasized that the survey included only privately practicing physicians. No attempt was made to collect information from the emergency rooms of large hospitals throughout the State like Grady Memorial, Emory University, or the University Hospital in Augusta, and no attempt was made to measure the number of minor injuries which were not treated by physicians.

FINDINGS

During the 2-year period covered by the study, 737 power lawn mower accidents, resulting in 794 injuries, were reported by the 463 physicians who returned questionnaires.

As shown in table 1, gasoline rotary mowers were involved in 82.5 percent of the accidents; gasoline reel mowers, in 7.7 percent; electric rotary mowers, in 5.4 percent, with the type of mower not indicated in 4.3 percent.

Table 2 reveals that 69.6 percent (553) of the injuries were due to direct contact with the mower, while the remaining 30.4 percent (241 injuries) were caused by objects being thrown by the mower blade.

Of the 553 injuries due to direct contact with the mower, 66.2 percent (see table 3) were injuries to the toes or feet, 25.8 percent were in-

Dr. McClure is a surgeon with the Buckhead Clinic in Atlanta, Ga.; Mr. Steed is director of the Accident Prevention Unit, Environmental Health Service, Georgia Department of Public Health; Mr. Alden is a health education consultant with the unit, and Mr. Terrell is a statistician with the department.

injuries to fingers or hands, and 8.0 percent were injuries to other areas.

By classifying the 241 injuries due to objects being thrown by the mower blade according to the percentage of times that each portion of the body was involved, the following results were obtained: lower extremities, 69.3 percent; trunk, 2.5 percent; upper extremities, 5.0 percent; head or neck (excluding eyes), 7.0 percent; and eyes, 16.2 percent. These data are shown in table 3.

As indicated in table 4, complications developed in 9.3 percent of the injuries, while 14.1 percent resulted in some type of permanent disability.

Among those physicians who reported injuries, 50.9 percent expressed the opinion that in their practice they had noted an increase in the number of power lawn mower injuries treated during the past 2 or 3 years. Of the injuries reported in this study, 30 more were reported for 1956 than for 1955.

Summary and Conclusion

The gasoline rotary type mower is involved in the majority of the accidents. It is believed that this high incidence of injuries is a result of the gasoline rotary mower's being both more dangerous and more frequently used than the other types of mowers.

As might be expected, most injuries are a result of direct contact with the mower, but a surprisingly high percentage (30.4 percent) of the reported injuries were caused by objects which were thrown by the mower blade. The victims of such missiles were frequently not the operators of the machines.

Over 90 percent of the injuries due to direct contact with the mower are injuries to toes, fingers, feet, or hands. Many of the injuries, especially those involving the fingers and hands, are probably due to negligence on the part of the operator.

The high incidence of injuries to the lower extremities from objects thrown by the mower blade is probably an indication of the greater exposure of these portions of the body to this type of injury. On the other hand, the number of injuries to the eyes is extremely high when the small amount of body surface involved and low exposure to injury of this portion of the body are considered. This means that the ratio of persons struck by objects thrown by the mower blade to the number of such persons treated by physicians is probably very high.

The number of injuries producing permanent disabilities (14.1 percent) was surprisingly high and cer-

not nec'd.

POWER LAWN MOWER INJURIES TREATED DURING 1955-56

		1955	1956
1.	How many injuries caused by the following type of power lawn mowers did you treat?		
	Gasoline powered-rotary	____	____
	Gasoline powered reel type	____	____
	Electric rotary	____	____
2.	How many of these injuries were caused by contact with the mower blade, according to the part of the body affected?		
	Toes or feet	____	____
	Fingers or hand	____	____
	Other areas	____	____
3.	How many of these injuries were caused by objects (stones, glass, wire, etc.) being thrown by mower blade, according to part of body affected?		
	Lower extremities	____	____
	Trunk	____	____
	Upper extremities	____	____
	Head and neck (excepting eyes)	____	____
	Eyes	____	____
4.	How many of these injuries were treated by both you and another physician?	____	____
5.	How many injuries resulted in complications? (Please specify part of body affected in these injuries. Use back of page, if necessary.)	____	____
6.	How many of these injuries resulted in permanent disability?	____	____

7. From your practice, have you noted an increase in the number of these accidents in the past two to three years? Yes ___ No ___

8. Would you be willing to assist in obtaining more detailed information on power lawn mower injuries if the problem indicates a need for more data? Yes ___ No ___

9. Please make any further comments you desire regarding power lawn mower injuries.

_____ _____

_____

_____ _____
Date Name

Thank you!
Ga. Dept. Public Health

_____
Address

HSU 1200-1-56

Figure 1. This questionnaire on power lawn mower injuries, developed by the Georgia Department of Public Health in cooperation with several practicing physicians, was sent by the department to selected physicians in private practice to obtain information to be used in an accident prevention program.

not nec'd.

Table 2.
Injuries Reported, Number and Percentage, by Manner of Injury, Georgia, 1955-1956

	Total, 1955 & 1956		1955		1956	
	Number	Percent	Number	Percent	Number	Percent
Total injuries	**794**	**100.0**	**382**	**100.0**	**412**	**100.0**
Injuries by direct contact with mower	553	69.6	272	71.2	281	68.2
Injuries by objects thrown by mower	241	30.4	110	28.8	131	31.8

Table 3.
Injuries Reported, Number and Percentage, by Manner of Injury and Portion of Body Involved, Georgia, 1955-1956

	Total, 1955 & 1956		1955		1956	
	Number	Per-cent	Number	Per-cent	Number	Per-cent
Injuries by direct contact with mower						
Total	**553**	**100.0**	**272**	**100.0**	**281**	**100.0**
Toes or feet	366	66.2	189	69.5	177	63.0
Fingers or hand	143	25.8	66	24.3	77	27.4
Other areas	44	8.0	17	6.2	27	9.6
Injured by objects thrown by mower						
Total	**241**	**100.0**	**110**	**100.0**	**131**	**100.0**
Lower extremities	167	69.3	73	66.4	94	71.8
Trunk	6	2.5	3	2.7	3	2.3
Upper extremities	12	5.0	8	7.3	4	3.0
Head and neck (excluding eyes)	17	7.0	6	5.4	11	8.4
Eyes	39	16.2	20	18.2	19	14.5

tainly attests to the violence of these machines.

In summary it may be said that this study indicates that the problem of power lawn mower injuries is one of considerable magnitude. The finding of 794 injuries in Georgia during the 2-year period of 1955 and 1956 by surveying one-half the practicing physicians would lead to the conservative estimate that at least 1,588 injuries were treated. This is of great importance to the manufacturers and the sellers, as well as the users of power lawn mowers. If the number of injuries continues to increase in the next few years, and there is every indication that it will, the power mower, particularly the rotary type, conceivably may be designated as a public health menace. In view of the above situation, we would like to make the following recommendations:

1. That appropriate organizations such as the National Safety Council, the public health departments, insurance companies, and the lay press give as much educational publicity to this problem as possible. An accident prevention attitude should be emphasized.

2. That the various county medical societies develop programs on this subject and encourage their members to speak before civic clubs, schools, churches, et cetera. Much can be done toward accident prevention in this manner, particularly when the local press helps.

3. That all manufacturers of power lawn mowers produce only machines which meet the highest safety standards.

4. That retailers sell only safely constructed machines and instruct each user in the safe operation of the mower.

5. That users of power mowers develop an awareness of the potential danger of such machines and exercise all safety precautions.

We would like to express our appreciation to all of the physicians who cooperated in this study.

Table 4.
Reported Injuries That Developed Complications or Permanent Disability, Number and Percentage, Georgia, 1955-1956

	Total, 1955 & 1956		1955		1956	
	Number	Per-cent	Number	Per-cent	Number	Per-cent
Total all injuries	**794**	**100.0**	**382**	**100.0**	**412**	**100.0**
Developed complications	74	9.3	35	9.2	39	9.5
Resulted in permanent disability	112	14.1	60	15.7	52	12.6

Suggestions on How to Operate Your Power Lawn Mower Safely

1. Know how to disengage the clutch or stop the engine quickly.

2. Allow expansion space when filling the fuel tank. The heat of the sun causes gasoline to expand, and if gasoline is spilled over the hot engine, fire can occur.

3. Do not refill when the engine is hot; this also can cause fire. When refilling the fuel tank, refill it out of doors.

4. Store gasoline in an approved container.

5. Foot protection such as the wearing of safety shoes is a good idea to avoid foot injuries when you are using a rotary type mower.

6. When starting your mower, stand firmly, and make sure your feet are in a safe position.

7. Inspect your lawn; be sure there are no stones, sticks, wire, or other debris in the area.

8. Under no conditions should children less than teen-age or inexperienced persons be allowed to operate power mowers.

9. Bystanders or pets should not be in the immediate area of mowing because rotary mowers can throw debris and have caused serious injury.

10. Keep in step with your mower for good control. If you lag behind or let the mower pull you, you won't be in full command of the machine.

11. Cut on hills and on banks sideways and not up and down hills. This will prevent loss of control over the mower, slipping into the mower, or the mower's sliding into the operator.

12. Disconnect the spark plug wire or the electric plug whenever you want to work on the underside of the mower. Tip the mower over by means of the handle. Don't reach under the deck, chain guards, or belt guards of any mower. Keep hands, feet, and clothing away from any moving parts. Never attempt removal of any object from the mower until the rotor has been completely stopped.

13. If using an electrically powered mower, do not use when grass is wet. Be certain the entire mower and power cord are in perfect condition and the motor is properly grounded.

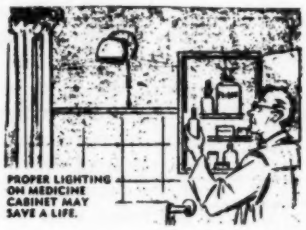
—National Safety Council

Leaflet for Program Planners

MISS EDITH R. DOANE, director, Women's Division, New Jersey State Safety Council, Newark, N. J., issues a bulletin *Minute Safety Messages* as a service. The one shown below is on the prevention of accidents to elderly people.

MINUTE SAFETY MESSAGES 2262

FOR USE BY PROGRAM-PLANNERS, SAFETY CHAIRMEN AND OTHER GROUP LEADERS



(These program aids are suitable for reading at meetings, for posting or for publicizing through bulletins and for use with leader-training groups. Reserve for undated and repeated use.)

–: FEBRUARY – GROWING OLDER SAFELY :–

"Safety Is Good For Life – The Better, The Longer"

FRIENDS: It is very important as we grow older that we think about our safety and take time to be careful. We cannot hold back the calendar but we can plan for a safe kind of living that will keep our later years "golden" – not broken by accident or disability. And how about our responsibility to others in our family who need us and want us to keep well? Isn't it up to us to avoid accidents so as not to cause them sorrow, inconvenience and expense? The New Jersey State Safety Council reminds us that, if we are serious about avoiding accidents, we not only can lengthen our lives but we can also add more life to our years.

****

FRIENDS: Do you have one or more Senior Citizens in your home? Or do you expect one in the near future? If so, give your attention to those little housekeeping details that can pay big dividends in safety, because three-quarters of the people who were killed in home accident falls in New Jersey in 1954 were 65 yrs. old and over and fires killed several more. Also injuries from these accidents are more likely to be permanently disabling to the elderly so precautions to prevent these kinds are especially important. Make sure rugs do not cause slips or trips; make sure there is adequate lighting in all rooms, hallways and stairways; make certain furniture is placed where it cannot impede traffic; make sure floors are not over waxed; make sure stoves, heaters and matches are handled with care. The New Jersey State Safety Council says, if you do these things to prevent accidents to the aging people in your home, you will start a chain reaction for the safety of all members.

****

PROGRAM SUGGESTIONS

Panel discussions between health and social welfare people; question-and-answer session with a geriatrician on the physiological factors in accidents in the aged; demonstration techniques for anchoring throw rugs, waxing floors safely, safe handling of mechanical equipment, safe work habits and eliminating special danger points in the home; explanation by architect of how much safety is being blueprinted today into the homes of tomorrow for the aged; an "experience" meeting of elderly accident victims, etc.

****

For Additional Program Materials Contact
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NEW JERSEY STATE SAFETY COUNCIL

24 Branford Place	Mitchell 2-3123	Newark 2, N. J.
28 West State Street	EXport 4-9604	Trenton 8, N.J.

Mayo Clinic Study

A Study of Accidents of Injured Children Seen at the Mayo Clinic in 1954.*

Arthur C. Smid, M.D.
and
George B. Logan, M.D.

ACCIDENTS ARE responsible for more deaths in infants and children between the ages of one and fourteen years than the four most fatal diseases of childhood combined, namely, pneumonia, congenital defects, cancer and tuberculosis.[1] [See references page 13.] In 1952, although Minnesota had its worst epidemic of poliomyelitis, accidents accounted for the deaths of two and a half times as many children as polio did.[2] Despite the fact that nearly all childhood accidents are preventable, the death rate from accidents among children is being reduced only about a third as fast as the death rate from disease.[3]

Before the accident problem can be solved, it must be defined.[4-6] It is best defined by statistics: From 11,000 to 13,000 children are killed by accidents in the United States each year; that is, one-third the total number of children who die each year do so as the result of accidents. From 40,000 to 50,000 is an estimate of the number of children permanently injured each year in the United States by accidents.[7] Approximately 1,000,000 children receive medical care each year because of accidents.

The prevention of accidents to children then is a major and still unsolved problem. Its solution should be the concern not only of the pediatrician but of the general practitioner and all other physicians and surgeons who deal in some way with the care of children who are injured accidentally.

This study was undertaken to ascertain the types and causes of acute accidents to children in a small urban and rural community. During the year, 1954, Rochester and Olmsted County had only two hospitals, both affiliated with the Mayo Clinic. A unique opportunity, therefore, was available for such an inquiry.

The study was limited to children less than fifteen years old who were seen either as outpatients in the emergency rooms or as inpatients in one of the two hospitals. All of the children were from Rochester and Olmsted County. Children seen at home by physicians or treated by the parents without being seen by a physician were not included; nor were those who had sudden fatal injuries, such as drowning or being killed outright in an automobile accident.

This study, therefore, encompasses the usual types of accidents seen in this kind of community. It is not a compilation of the extremely unusual or rare type of accident.

Method of Study

Data concerning the accidents and injuries were obtained from the records on file in the Mayo Clinic. The accidents were of four major types: (1) home, (2) public, (3) motor vehicle and (4) occupational (or school). Observation of this classification immediately shows some overlapping as the accidents in the public domain naturally would include many motor vehicle accidents and others might be in the home area. For our purposes we defined the groups as follows:

Included as home accidents were any accidents which happened in or around the home proper. Public accidents consisted of those that occurred away from the home, on the street, sidewalk or any other place of public recreation, amusement or activity. Motor vehicle accidents consisted of those in which the child was injured as a passenger in an automobile, by collision of the automobile, sudden stopping, or falling from the moving vehicle. Accidents in which the child, as a pedestrian, was injured by a motor vehicle, were classed as public accidents. Accidents resulting from a closing car door, the majority of which occurred in the home area proper, were included under the major classification of home accidents, or if the injury occurred away from home as public accidents. Occupational or school accidents were those which occurred on the school grounds or in the school.

The principal cause of each accident was determined. Causes were found to be falls, unsupervised activity, supervised activity, machinery, foreign body, motor vehicles, poisoning, burns, firearms, suffocation and some miscellaneous ones. In a sense unsupervised activities would cover many of the other causes. However, they have been listed separately because of their importance. In this list of principal causes of accidents, accidents involving motor vehicles whether the child was a pedestrian or passenger were considered to be due to motor vehicles. The only exceptions were

*This article, a paper entitled "Accidents of Children" read at the meeting of the Northwestern Pediatric Society, Bayport, Minn., September 23, 1955, has been reprinted (revised) from *Minnesota Medicine*, vol. 39, No. 6, pp. 392-399, June 1956, published by the Minnesota State Medical Association, St. Paul, Minn.

Dr. Smid at the time this paper was read was a Fellow in Pediatrics, Mayo Clinic and Mayo Foundation. He is now a pediatrician with the Wolf Medical Group in Naperville, Ill. Dr. Logan is from the Section of Pediatrics, Mayo Clinic and Mayo Foundation.

The Mayo Foundation, Rochester, Minn., is a part of the Graduate School of the University of Minnesota.

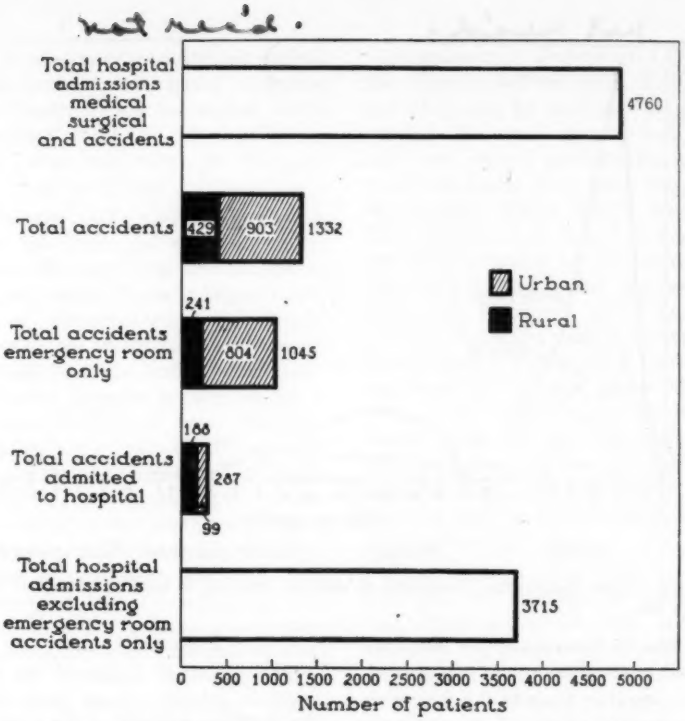

Fig. 1. Comparison of hospital admissions and accidents of children in Rochester in 1954.

the accidents due to closing of car doors and windows. Because of the specific nature of the injury and the rather large number of such accidents, these accidents were classed as being caused by doors and windows.

It became apparent during the study that the terms "falls" and "miscellaneous" could more appropriately be considered as subdivisions in the groups of accidents due to (1) unsupervised and (2) supervised activities or play; or as (3) those associated with animals, foreign objects and door and window injuries.

Since accidents due to foreign bodies are more closely associated with children than adults, this cause of accidents was subdivided as to type: (1) aspiration or ingestion, (2) penetrating or cutting and (3) self-introduced.

Number of Children Injured

Of the 4,760 children seen in 1954 in the emergency rooms or in the hospitals of Rochester, 1,332 had had accidents (Fig. 1). Thus 27.9 per cent of the patients seen on the pediatric services under these circumstances were seen because they had injuries. Of the injured patients 903 were from the urban area and 429 from the rural area. One thousand forty-five of the children injured needed emergency room treatment only; 804 of these came from the urban area and 241 from the rural area. The remaining 287 children who were injured were hospitalized; ninety-nine of these were from the urban area and 188 from the rural areas.

The number of admissions to the hospitals' pediatric services for all causes in 1954 was a total of 3,715. Hence, approximately 7 per cent of our hospital admissions of children for 1954 were for injuries sustained in accidents.

Type of Accident

The type of accident and the sex and age of the patients are indicated in Figure 2. In the entire group, there were 837 males and 495 females injured, a ratio of one female to 1.7 males.

The greatest number of accidents to our patients occurred in the home and involved children from two to five most frequently and those from six to ten years of age next. These home accidents numbered 953 (71.5 per cent of the total).

Two hundred seventeen accidents (16.3 per cent) occurred in public places. Children from six to fourteen years old were involved most frequently with about an equal number for ages six to ten and eleven to fourteen. Younger children had somewhat fewer accidents away from home.

The greatest number of children injured as passengers in or by motor vehicles was in the age group of two to five years. The total number of children having motor vehicle injuries as passengers was eighty-four (6.3 per cent).

Seventy-eight children (5.9 per cent) were injured in occupational types of accidents. The two occupa-

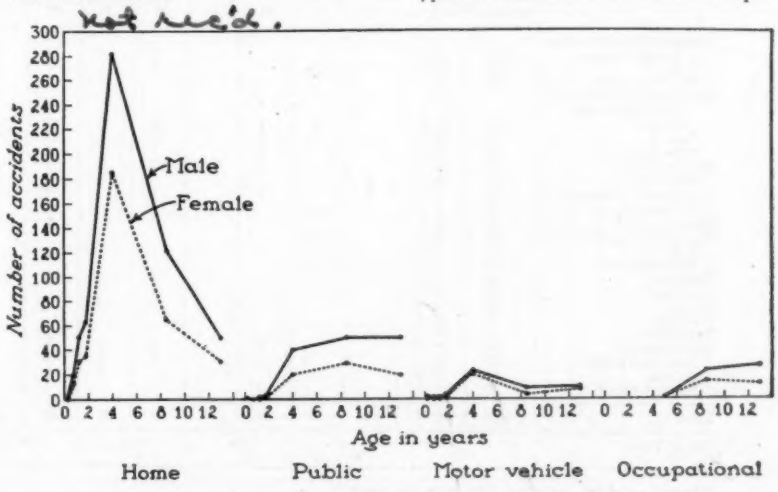

Fig. 2. Major classification of accidents of children according to sex and age.

tional accidents in the age group of two to five years were those of two five-year-old children who were in kindergarten.

Urban Versus Rural Accidents

Nine hundred and three children were injured in the city and 429 in the rural areas. Figure 3 relates the type of accident to its occurrence in the city or in a rural area. The ratio of urban accidents to rural accidents is 2:1 in this series of cases.

The 1950 United States[7] census indicated that a total of 12,803 children through the age of fourteen years were living in Rochester and the Olmsted County area. Of this total, 6,622 children were in urban Rochester and 6,181 were in the rural areas of Olmsted County. The total figures are undoubtedly somewhat higher for 1954, but the ratio of urban children to rural children is probably the same. From use of the 1950 census figures and the 1954 hospital-accident figures, the incidence of urban accidents was one accident for every seven children, and the rural incidence was one for every fourteen children.

The unusually high incidence of urban accidents in this series may be accounted for in part by the ease with which children of the community can be brought to the hospitals for all types of emergency treatment.

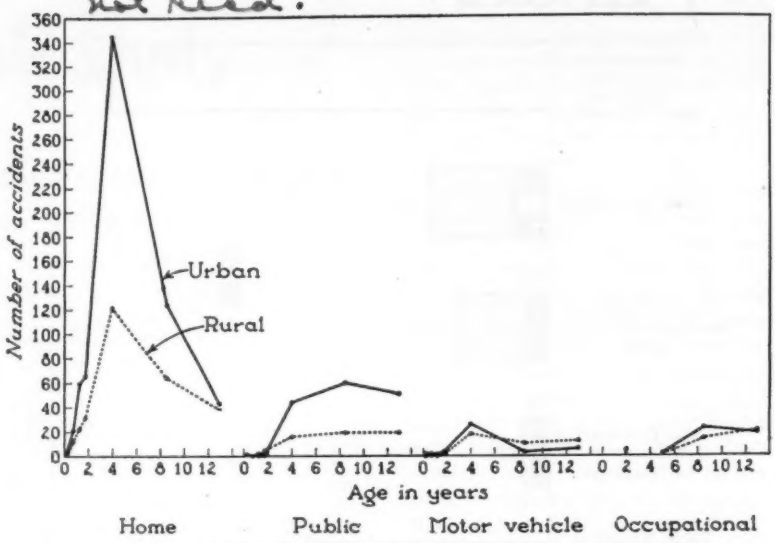

Fig. 3. Major classification of accidents of children according to locality, urban and rural, and to age.

A critical analysis of the figures on the principal causes of the accidents will show that more rural than urban children were injured by motor vehicles (both as pedestrians and passengers) and machinery. Further evidence of the seriousness of rural accidents will be discussed later in relation to the sequelae resulting from the accidents.

Principal Causes

The principal causes of the accidents in relation to age and sex of the children and site of the accident, whether urban or rural, are listed in Tables I and II. A few of the principal causes were subdivided to show the type of accident more clearly. Accidents of a similar nature were classed under several principal causes. For example, injuries resulting from falls were listed un-

TABLE I. PRINCIPAL CAUSES OF 903 ACCIDENTS OF URBAN CHILDREN

Principal Cause	Total		Age and Sex													
			Less than 6 mo.		6-11 mo.		12-17 mo.		18-23 mo.		2-5 yr.		6-10 yr.		11-14 yr.	
	Number	Per Cent	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unsupervised activities (out of doors)	213	23.6					4	2	4	3	60	33	53	28	21	5
Falls	150	16.6					4	1	2	2	38	25	36	10	10	4
Miscellaneous	63	7.0						1	2	1	22	8	17	9	2	1
Unsupervised activities (in or about the house)*	229	25.3		2	7	6	16	6	23	12	67	48	15	19	3	5
Falls	197	21.8		2	6	6	15	5	21	10	57	42	12	16	1	4
Miscellaneous	32	3.5			1		1	1	2	2	10	6	3	3	2	1
Foreign bodies	133	14.7	1		2		2	3	7	2	40	24	20	8	14	10
Penetrating	101	11.2					1	3	5	1	32	13	16	6	14	10
Aspiration-ingestion	23	2.5	1		2		1		2		4	8	3	2		
Self-introduced	9	1.0								1	4	3	1			
Motor vehicle†	54	6.0					1		2	1	17	12	8	2	8	3
Supervised activities	66	7.3		1							4	2	18	11	20	10
Falls	21	2.3									2	1	5	7	4	2
Miscellaneous	45	5.0		1							2	1	13	4	16	8
Poisoning	58	6.4			2	1	9	3	6	2	19	15				1
Machinery	23	2.6									9	6	1	1	2	4
Burns	26	2.9					5	4			5	6	4		1	1
Firearms	2	0.2											1			
Suffocation	2	0.2	1								1					
Miscellaneous	97	10.8			2		4	2	6	1	28	24	9	12	5	4
Door and window	45	5.0			1		4	1	3	1	16	10	2	3	1	3
Animal	25	2.8						1	2		3	10	2	5	1	1
Foreign object	27	3.0			1				1		9	4	5	4	3	
Total	903	100.0	2	3	13	7	41	20	48	21	250	170	129	81	75	43
Grand Total			5		20		61		69		420		210		118	

*Indoor activities, including falls from the porch.
†Includes all types whether public, that is, pedestrian or passenger. Excludes doors and windows.

der unsupervised activity and supervised activity, whichever category was correct. Falls accounted for a combined total of 487 accidents, both urban and rural, or 36.6 per cent of all accidents.

Unsupervised outdoor activities were the principal cause of accidents; the total was 293 accidents (22 per cent). The next largest number of accidents occurred during unsupervised indoor activity, including falls from the porch or windows and other injuries, accounting for a total of 291 (21 per cent). Foreign-body accidents caused 201 injuries (15 per cent). These three principal causes together accounted for almost three-fifths of the accidents; that is 58.9 per cent. The remainder of the causes of accidents and the total number of cases encountered are: motor vehicle (pedestrian and passenger exclusive of door and window injury), 114 cases; supervised activities, ninety cases; poisoning, eighty-eight cases; machinery, fifty-nine cases; burns, forty-eight cases; firearms, four cases; suffocation, three cases; and miscellaneous, 141 cases, of which thirty-six cases were due to foreign objects such as rocks and stones, forty-six cases to animal type of accidents such as bites, scratches or falls, and fifty-nine cases to door and window injuries.

Frequency of Injury in Certain Age Groups.—From both Tables I and II it may be seen that children between the ages of two and five years are injured accidentally much more frequently than those of other age groups. There was a total of 575 children from two to five years old (43 per cent of the grand total). The 1950 United States census statistics for Rochester and Olmsted County list approximately 4,034 children between the ages of two and five years in this area, about 32 per cent of the total number less than fifteen years of age. Though the 1954 population figures are undoubtedly increased, the age-group proportions and percentage of children are probably the same.

These figures then tend to substantiate the findings of others[4, 6] that children between the ages of two and five years are injured more frequently by accidents than children in any other age group.

Types of Injuries

The types of injuries are grouped in order of frequency in Table III. Lacerations accounted for 38.2 per cent of the total injuries.

A few of the objects responsible for penetrating and cutting injuries in order of frequency are (1) metal objects such as cans, coat hangers, and metal toys, (2) nails, (3) glass, (4) wood, (5) utensils, both kitchen and garden, (6) arrows or darts and (7) a miscellaneous group.

The ingestion or aspiration of foreign bodies constitutes a small (forty-eight cases) but significant number of accidents. The kinds of objects in the order of frequency were (1) coins, (2) foodstuffs such as peanuts, fishbones, popcorn, meat, carrots, orange peel and egg shells, (3) metallic objects as bolts, screws and tacks, (4) pins and buttons and (5) glass beads and marbles. The most unique object was a lead cowbell clapper.

Self-introduced foreign bodies were found most commonly in nasal passages, occasionally in the external auditory canal and rarely in the vagina. The various types of objects in order of frequency were pins, buttons, glass beads, paper, gum and crayons.

Poisoning is an important cause of accidents. There were eighty-eight children in our group who were injured in this way. A partial list of the different types of poisons includes in order of frequency: aspirin, turpentine, fuel oils, arsenic, dilantin, lye or bleach, liquid soaps, nicotine, insecticides and single instances of poisoning by a great variety of medicines and other sub-

TABLE II. PRINCIPAL CAUSES OF 429 ACCIDENTS OF RURAL CHILDREN

Principal Cause	Total		Age and Sex													
			Less than 6 mo.		6-11 mo.		12-17 mo.		18-23 mo.		2-5 yr.		6-10 yr.		11-14 yr.	
	Number	Per Cent	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unsupervised activities (out of doors)	80	18.6				1	1	1	1	1	24	4	23	9	10	5
Falls	55	12.8				1	1		1		12	3	20	8	5	4
Miscellaneous	25	5.8						1		1	12	1	3	1	5	1
Unsupervised activities (in or about the house)*	62	14.4			2	1	2	3	5	2	22	13	5	2	5	
Falls	52	12.1			2	1	2	3	4	2	19	10	5	2	2	
Miscellaneous	10	2.3							1		3	3			3	
Foreign bodies	68	15.9			2	2		1	7	4	14	9	11	7	5	6
Penetrating	35	8.2							2	2	3	6	9	4	4	5
Aspiration-ingestion	25	5.8			2	2		1	5	1	8	1	1	2	1	1
Self-introduced	8	1.9								1	3	2	1	1		
Motor vehicle†	60	14.0	2		1				3	2	12	12	10	4	7	7
Supervised activities	24	5.6											5	4	10	5
Falls	12	2.8											4	3	2	3
Miscellaneous	12	2.8											1	1	8	2
Poisoning	30	7.0					3	3	5	2	9	6		1	1	
Machinery	36	8.4					2	1		1	7	7	8	2	8	
Burns	22	5.1		1	3	1	2	2		3	3	2	3		2	
Firearms	2	0.5													1	1
Suffocation	1	0.2	1													
Miscellaneous	44	10.3	1				2			1	6	5	9	3	13	4
Door and window	14	3.3	1				2			1	4	1	2	2	1	
Animal	21	4.9									1	3	2	1	10	4
Foreign object	9	2.1									1	1	5		2	
Total	429	100.0	4	1	8	5	12	11	21	16	97	58	74	32	62	28
Grand Total			5		13		23		37		155		106		90	

*Indoor activities, including falls from the porch.
†Includes all types whether public, that is, pedestrian or passenger. Excludes doors and windows.

stances to which children have access in homes.

Here as elsewhere,[8] aspirin is an important and dangerous cause of poisoning. The same may be said of turpentine and fuel oil both of which are often easily accessible in soft-drink and other lightly stoppered or unstoppered bottles. The easy accessibility of these and other things (the fault of an adult) is responsible for the poisonings.

Permanent Disabilities

Of the fourteen urban children in the total of 903 who suffered permanent disability, two were less than two years of age (the youngest was eleven months of age); four were between two and five years, three were six to ten years and five were eleven to fourteen years. Of the thirty-nine rural children who incurred disabilities, six were less than two years of age (the youngest was ten months); nine were two to five years old, nine six to ten years and fifteen were eleven to fourteen years old.

The types of accidents which gave rise to the permanent disabilities of the urban children were in order of frequency: unsupervised activities, foreign bodies, and firearms, three cases each; burns, two cases; and suffocation, animal and door and window injuries, one case each. Some of the sequelae of these fourteen cases of urban children were peripheral nerve palsies with associated loss of function, traumatic cataracts, extensive scarring with contraction deformities, amputations and a single case of decerebrate rigidity (the result of accidental hanging).

The types of accidents of rural children that resulted in permanent disability are decidedly different from the foregoing and include ten due to machinery, eight to burns, seven to foreign bodies, six to motor vehicles, four to animal injuries, three to unsupervised activity and one to poisoning.

The permanent damages resulting from the accidents of the rural children include in order of frequency: (1) peripheral nerve palsies with loss of function; (2) extensive scars with contraction deformities; (3) loss of function of a whole or part of an extremity without nerve injury; (4) amputations, varying from loss of a single phalanx to loss of an entire leg; (5) severe keloids; (6) strictures (both esophageal and urethral); (7) traumatic cataracts, and (8) total enucleations of the eye.

There was one case of permanent disability for every sixty-five urban accidents, and one for every eleven rural accidents. The over-all ratio was one case of permanent disability for every twenty-five accidents.

Whereas we encountered fewer accidents among children from our rural areas, those who were seen were more severely injured and more of them had permanent disabilities than did those from the urban area.

Fatal Accidents

Seven children died as a result of injuries: five were males, and two, females. Two were urban and five were rural.

Three of these, aged three days, eleven months, and seven years, respectively, died as a result of a foreign-body type of injury. The specific type in two cases was aspiration of formula and egg shells, and in one case, penetration of a wooden stick which pierced the child under its eye and entered the brain.

Two children, aged twenty-two months and six years, were injured fatally in motor vehicle accidents. In each instance the child was a pedestrian and had been struck by a motor vehicle.

One child, aged eight years, was injured fatally when she fell from a second story window at her home. A twelve-year-old boy was injured fatally when his chest was crushed by a grain wagon.

These seven fatal accidents represent an over-all ratio of one death for every 190 accidents. The urban incidence rate was one death for every 450 accidents, and the rural fatality ratio was one death for every eighty-six accidents.

Duration of Stay in Hospital and Disability

The duration of the stay in the hospital and length of disability is given in relation to the kind of accident and to whether it occurred in the urban or rural area in Table IV.

The incidence rate of hospital admissions for urban children was one for every 9.1 accidents; for rural children one for every 2.3 accidents.

The ninety-nine urban patients spent a total of 755 days in the hospitals or an average of 7.6 days per patient. The total number of days of disability of the children injured in the urban area was 2,757 or an average of 27.8 days per patient.

The 188 patients injured in rural areas spent a total of 2,650 days in the hospital, an average of 14.1 days per patient. The total number of days of disability of these rural children was 11,264, an average of 59.9 days per patient.

In 1954 about twice as many children accidentally injured in rural areas as in urban areas were hospitalized. The average duration of hospitalization was almost twice as long for the children from the rural areas. Two types of accidents contributed chiefly to the more prolonged hospitalization of children injured in rural areas: burns and

TABLE III. TYPES OF INJURIES IN 1,332 CHILDREN

Types of Injury	Total	Urban				Rural			
		No.	%	M	F	No.	%	M	F
Lacerations	540	399	28.2	280	119	141	10.0	94	47
Fractures and dislocations	220	111	7.9	60	51	109	7.7	70	39
Contusions	197	134	9.5	75	59	63	4.5	36	27
Head injury	117	71	5.0	41	30	46	3.3	31	15
Abrasions	112	77	5.4	41	36	35	2.5	21	14
Poisoning	88	58	4.1	36	22	30	2.1	18	12
Burns	48	26	1.8	15	11	22	1.5	13	9
Aspiration or ingestion	48	23	1.6	13	10	25	1.8	17	8
Sprains	24	20	1.4	13	7	4	0.3	3	1
Crush injury	14	3	0.2	3	—	11	0.8	10	1
Gunshot	4	2	0.1	2	—	2	0.1	1	1
Suffocation	3	2	0.1	2	—	1	0.1	1	—
Total	1,415*	926*	65.3	581	345	489*	34.7	315	174

*Some children had more than one type of injury in a single accident.

motor vehicles. Children whose burns occurred in rural areas were hospitalized on an average of twice as long (55.2 days as compared to 29.3 days) as those burned in the city. This indicates more severe burns among the rural children.

Three types of accidents contributed chiefly to the prolonged period of disability suffered by children injured in rural areas: burns, motor vehicles and machinery. We encountered no machinery injuries among urban children sufficiently severe to warrant hospitalization. The average hospital stay of 12.9 days and disability of 85.2 days among those injured by machinery on the farm should emphasize the increased hazard of living on farms since they have become mechanized. It behooves farm parents to see that the farm machinery is carefully operated and that tractors and other machines are not entrusted to children who are not capable of operating them.

TABLE IV. ACCIDENTS OF CHILDREN: HOSPITAL STAY AND LENGTH OF DISABILITY

	Urban			Rural		
		Days			Days	
	Patients	Hospitalized	Of Disability	Patients	Hospitalized	Of Disability
Unsupervised activities (in or about house)*	16	81	436	19	91	236
Unsupervised activities (out of doors)	24	121	906	22	210	1,599
Supervised activities	6	35	120	9	48	348
Motor vehicle†	9	58	112	31	660	2,510
Foreign bodies	14	91	501	29	170	240
Aspiration		48			80	
Penetrating		43	501		90	240
Poisoning	12	31	—	14	78	300
Burns	7	205	459	14	774	1,776
Firearms	2	18	24	1	33	90
Suffocation	1	15	—	1	2	—
Miscellaneous	8	100	199	21	237	1,865
Foreign objects		76			30	659
Animal		17			201	1,192
Door and window		7			6	14
Machinery	—	—	—	27	347	2,300
Total	99	755	2,757	188	2,650	11,264
Average days per patient		7.6	27.8		14.1	59.9

*Indoor activities, including falls from porch.
†Includes all types whether public, that is, pedestrian or passenger. Excludes doors and windows.

Comment

It is generally agreed that most accidents among children are preventable. It can be stated also that adults are responsible for an extremely large number of the accidents that befall children.

To show these facts more clearly our study revealed that 71.5 per cent of the total number of accidents were home accidents and that children in the preschool age group, that is, two to five years, were injured about twice as frequently as were children of any other age. For at least three-fourths of the total accidents the parents could be held directly or indirectly responsible.

It is apparent that prevention of accidents must include not only protection of the child but also education of the child and of all adults whose attitude is, "Well, accidents are bound to happen, so what!" Unless the family physician or pediatrician provides the education and supports a co-ordinated state-wide educational program, many families will not be given any "safety vaccine."[9] This term has been coined to stress the necessity of adequate safety education. Its omission is as grievous as failure to administer protection against smallpox, diphtheria, tetanus and whooping cough.[10]

We as physicians and surgeons must educate ourselves to the problems of preventing accidents in children. We must emphasize the importance of accident prevention to our medical students, interns, residents, patients and parents of patients.

Summary

In 1954, 1,332 infants and children who had experienced acute accidents were seen at or admitted to the hospitals affiliated with the Mayo Clinic. Of this total, 903 came from the urban area and 429 were from the rural area; a ratio of 2:1. The ratio of accident to nonaccident hospital visits was 1:2.6 and that for hospital admissions was 1:11.9.

The largest number of accidents was in the major classification of home accidents.

Two hundred eighty-seven patients (188 from rural and 99 from urban areas) were admitted to the hospitals because of accidents. The average number of days in the hospital per patient was 14.1 and 7.6, respectively, for rural and urban children. The average number of days of disability was 27.8 for patients from urban areas and 59.9 for those from rural areas.

Fifty-three children had permanent disability, one for each twenty-five accidents; seven fatalities occurred, one for each 190 accidents.

These facts emphasize the need for a better and more co-ordinated program for accident prevention in Minnesota. In order to promote an effective program doctors must develop an interest in and desire to eradicate accidents as a killer and disabler of children.

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WHILE GOING TO AND FROM SCHOOL

Achieving Safety Education for Children and Youth in School, College, and Community—While Going to and From School.*

Chairman:

Harold A. Fischer, prin., R. L. Vann Elem. Sch., Pittsburgh, Pa.

Recorders:

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W. C. Yeager, dir., safety educ., Sioux City Pub. Schools, Sioux City, Iowa.

Resource people:

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Lunch Leisure Time

Where children are permitted to leave school premises to eat lunch at home or to leave school premises after eating lunch, there is a possibility that they can get into many difficulties. To rectify this condition some schools shorten the lunch period; others provide supervised play such as games or movies to keep the children on the school premises.

Some schools have a hot lunch program where everyone stays, including the teacher, and all remain on school premises. Children are excused only if parents request children to come home and are then required to sign a special permission blank.

It is thought by some people that teachers need a noonday break away from children and activities. Another difficulty is that children may gulp their food in order to be first in the activities after lunch. It has been found in some places that the lunch period can be shortened, special activities removed, and eating habits of children improved.

Someone commented that after eating hurriedly the children go to a nearby playground or candy store. In one case the student council supervises the lunch period. In another a lay person does the supervision. In some cases a faculty member is paid for this noonday service. It was suggested that each school must work out its own problems, but a set policy was advisable for each school.

Insurance Coverage

One school reported that, since insurance had been taken out, there had been an increase in the number of accidents but a decrease in the severity rate. In this case the insurance program was endorsed by the board of education and paid for by the parents.

In relation to insurance it is necessary to distinguish between malicious behavior and true accidents. In one case a child was involved in an accident when he was an innocent bystander. He was struck in the leg with a knife which caused severe injury and a large medical bill. The insurance company refused to pay this bill, for its representatives claimed it was the result of malicious behavior on the part of the student involved in the knife throwing.

In another example a child was hit in the ear with a snowball. The mother claimed this was the cause of an ear injury, although the boy needed attention for ear trouble before the accident.

It is suggested that all accidents occurring while the children are under school jurisdiction be reported, no matter how trivial. This is to have all information available in case of any lawsuit or unfavorable publicity.

Dangerous Play Activities

The schools represented reported many dangers such as a railroad crossing where the children played between the cars, a lake and a river where the children played near the edges, road repair flares which the youngsters jumped over, street excavations which they jumped over, and sandpiles for building where children played.

Recently a 6-year-old was smothered by sand which caved in. In

*This is a resume of a discussion of Special Interest Group 7 entitled "Achieving Safety Education for Children and Youth in School, College, and Community—While Going to and From School." This discussion occurred October 23, 1956, at the School and College Sessions of the 44th National Safety Congress in Chicago, Ill.

Location and Type	ALL GRADES	Kgn.	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Unct.
SCHOOL JURISDICTION	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
School plant	90.1%	81.2%	83.0%	81.8%	86.0%	86.8%	88.4%	90.2%	91.3%	92.3%	94.3%	95.6%	96.2%	94.7%	92.3%
Special activities	.1%	0%	0%	.1%	.2%	.1%	0%	.2%	.1%	.1%	0%	0%	.1%	.4%	0%
Going to or from school	9.8%	18.8%	17.0%	18.1%	13.8%	13.1%	11.6%	9.6%	8.6%	7.6%	5.7%	4.4%	3.7%	4.9%	7.7%
School bus	.3	.4	.2	.2	.3	.1	.1	.2	.4	.3	.4	.3	.2	.2	.8
Public carrier (incl. bus)	.2	.3	.1	.1	0	0	0	.1	.3	.4	.5	.3	.3	.1	.3
Motor scooter	.1	0	0	0	0	0	0	0	0	.1	.1	.1	.2	.1	.2
Other mot. veh.—pedestrian	1.7	6.3	5.3	5.0	3.3	1.3	1.0	.8	1.0	.8	.6	.1	.2	.3	1.7
Other mot. veh.—bicycle	.3	.7	.2	.4	.4	.5	.3	.4	.4	.6	.2	0	0	0	0
Other mot. veh.—other type	.5	1.3	.8	.8	.4	.3	.4	.2	.2	.3	.1	.7	.4	1.8	.5
Bicycle—not mot. veh.	.5	.2	.6	.6	.7	1.1	.9	.6	.8	.7	.4	.1	.1	0	.3
Other street and sidewalk	4.3	6.9	7.3	8.1	6.2	6.1	5.8	4.6	3.8	3.2	2.2	2.0	2.1	1.9	2.5
Other	1.9	2.7	2.5	2.9	2.5	3.7	3.1	2.7	1.7	1.3	1.2	.8	.2	.4	1.4

Source: Based on reports of 23,071 school jurisdiction accidents from school systems with an average enrollment of 1,461,000 and 7,211 nonschool jurisdiction accidents from school systems with an average enrollment of 653,000 for the calendar year 1955, excluding nonschool months. Accidents included are those requiring a doctor's attention or causing absence from school of one-half day or more.

This discussion was held because of the relatively high percentage of accidental injuries to school children going to and from school which are not motor vehicle. Going to and from school, accidents on streets and sidewalks occurred most frequently (principally falls). This table shows details for these accidents plus a summary of school plant and special activities accidents. Note that if you were to add together "other street and sidewalk" and "other" accidents, they would exceed motor vehicle and bicycle accidents in each grade except the twelfth. The complete table is in the 1956 edition of *Accident Facts*.

another case children were playing in leaves which had been gathered in the gutter preparatory to collection and exposed themselves to the danger of being run over by automobiles and trucks.

It was suggested that movies of children be taken when they did not know they were being taken and then they be shown the dangerous actions they were taking. It was thought that parents might object to this type of program. Another suggestion was for an educational safety program with speakers and films to point up the hazards of railroads.

The question was raised as to whether we are preparing our children to meet the dangers that they meet when they travel.

Children's Behavior

A report of the block mother plan developed by a local parent-teacher association was given. A mother in every block places a sign with a red M in the window. This tells the children that they can go to this home for help on their way to and from school.

The mother reports any trouble to the school, and the school carries on. The mother may notify the police if there is an accident or report a suspicious character if the children are stopped or molested. This program discourages bullying and stone throwing.

Hazards

An increase of power lines in one area where there is much timber presented a problem during a storm. Power lines were torn down, and many fell on cars or across fences. It is important to teach children the dangers of stepping out of an automobile. In a storm it's safer in a car than out. Children should be taught not to touch a fallen wire but to report this at school immediately.

Flying kites could create another hazard if strings and wires become entangled in the power lines. Safety measures must be taught at all school levels. This must start in the kindergarten and go through elementary and high school.

The question of who should teach safety brought forth a lively discussion. It was agreed that services should be coordinated. On-the-spot safety is to be emphasized in the classroom. Teachers are supplied with teaching tools such as materials produced by the National Safety Council and should use them. In one school district a teacher is supplied with enough safety program material to give each child in the classroom copies.

Everyone agreed that building a safety attitude from kindergarten up through the grades is part of the curriculum for every class in every school. One school has school patrols for boys and social patrols for girls that work so well that adult supervision is not necessary.

The question was asked how much the National Safety Council material may be used in schools. Some areas use everything available, and others have a school board ruling that would not permit the use of another name or that of a manufacturer, industry, and so forth.†

Many teachers are using material pertinent to teaching safety without the principal's or superintendent's knowledge. Many felt it is necessary, however, to have a clearinghouse for materials used in the classroom.

A question was asked: If teachers of all grade levels are to teach the same safety program, would not a child receive the same information in many classes? It was suggested that the homeroom teacher should be responsible for the physical education program. Each person agreed that the teacher should receive safety education in college or inservice education for safety.

Material regarding bicycle safety and pedestrian safety can be obtained through many police departments; fire prevention materials, from the fire department. Many manufacturing or other industries also produce material. It was suggested that, if advertising is on the material, the advertising could be cut off but the materials used to teach safety. It was pointed out that such activities would be dishonest and not in line with the high moral standards of the school. It was agreed that more safety should be taught in the schools.

†This comment apparently refers to advertising material and not to such material as that produced by the National Safety Council.

BRITISH COLUMBIA
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WASH.
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IDAHO
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WYO.
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S. DAK.
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NEV.
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NEBR.
62
UTAH
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COLO.
42
KANS.
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CALIF.
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ARIZ.
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N. MEX.
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OKLA.
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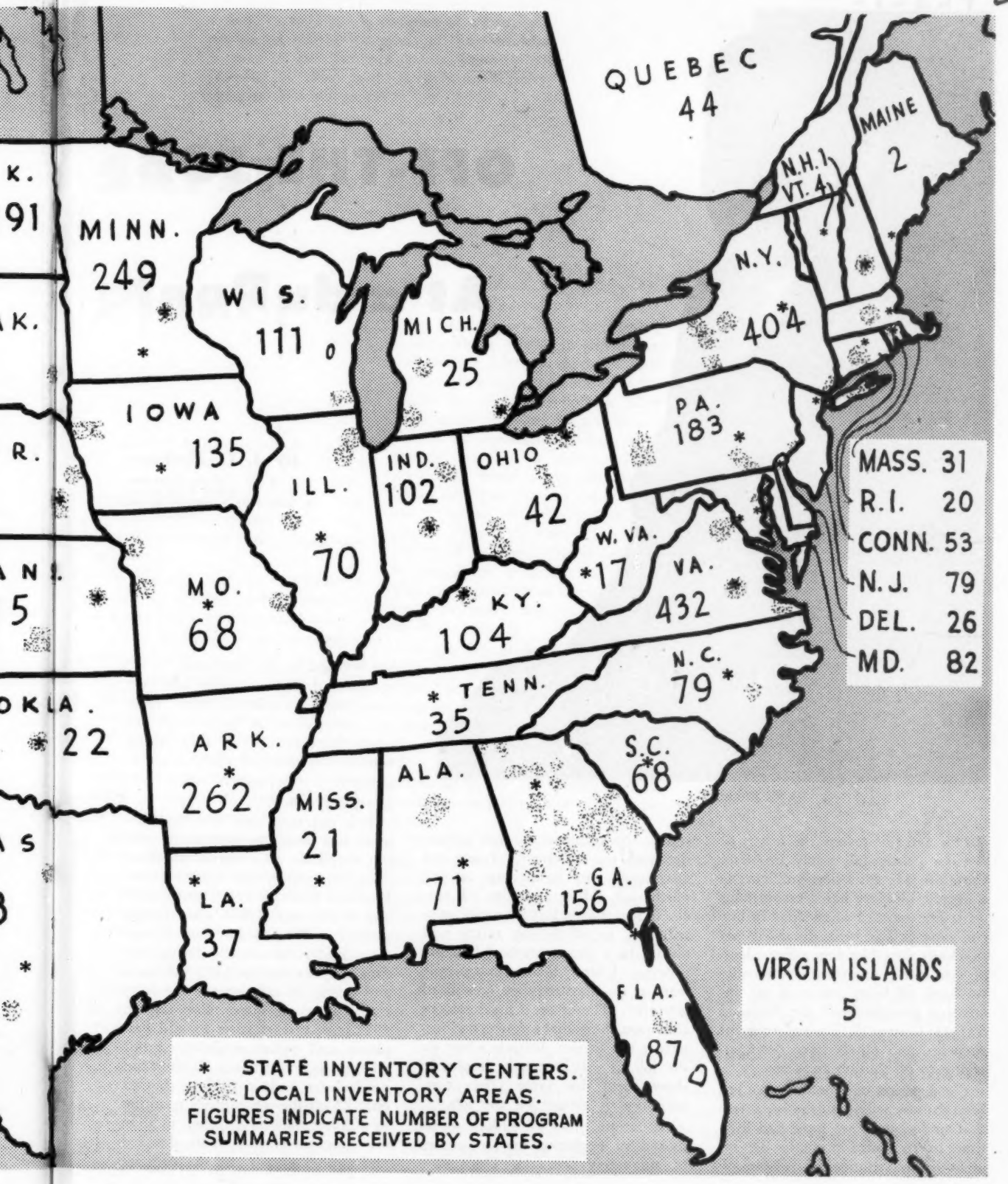
HAWAII
18
TEXAS
128
MORE THAN 4,000 ORGANIZATIONS
PARTICIPATE IN 1956 Home Safety Inventory


QUEBEC
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LA.
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FLA.
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MASS. 31
R.I. 20
CONN. 53
N.J. 79
DEL. 26
MD. 82
VIRGIN ISLANDS
5
* STATE INVENTORY CENTERS.
LOCAL INVENTORY AREAS.
FIGURES INDICATE NUMBER OF PROGRAM SUMMARIES RECEIVED BY STATES.

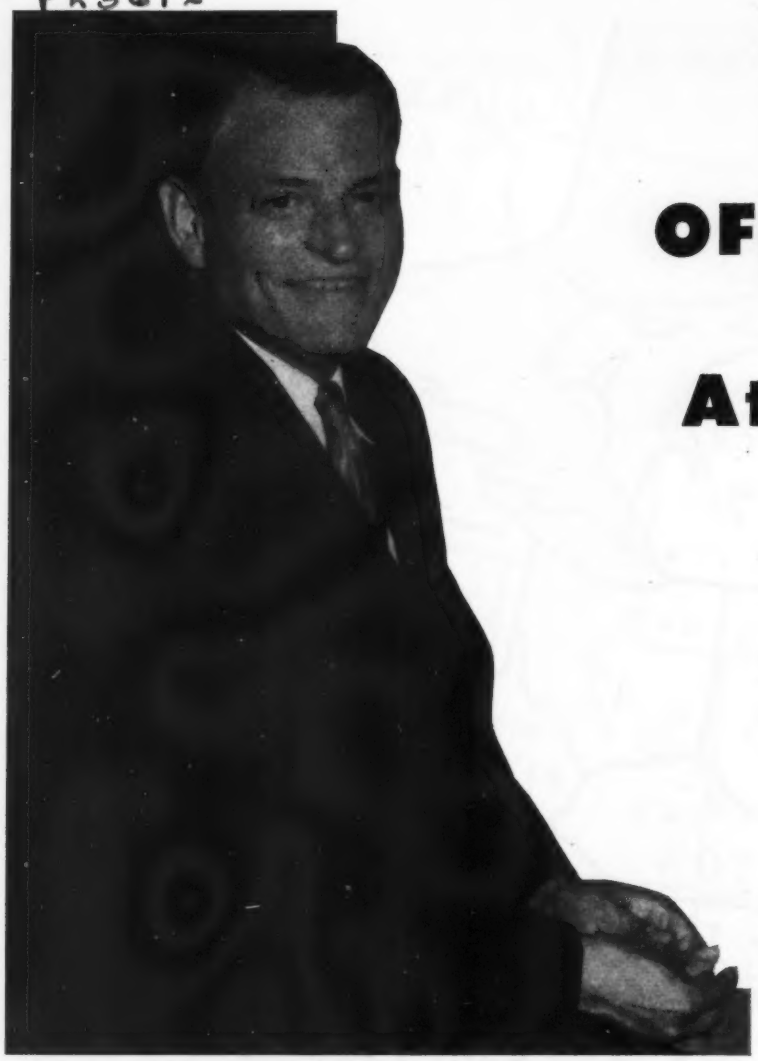
Phot 1

OFF-THE-JOB

At a duPont

By J. C. Methner

Safety Supervisor
Sabine River Works
E. I. du Pont de Nemours & Co.
Orange, Tex.



J. C. Methner

LET'S BRIEFLY review the origin of our off-the-job safety problem. Certainly it is not a new problem; to a degree, industry has been working on it for years. I know that in our company it has been discussed periodically just like any other phase of our safety program. Nationally, we have all been aware of the increasing pressure that the National Safety Council, law-enforcement agencies, and others have been applying to off-the-job accidents.

For a period of time, industry has been so busy selling on-the-job safety that undoubtedly we have had little time to recognize properly the increasing importance of off-the-job safety. Now, please do not misunderstand my statement; I am not advocating any easing up of our on-the-job safety activities. I sincerely feel that industry's major contribution to off-the-job safety will always be a strong on-the-job safety program. I firmly believe that people want to do what they are convinced is proper. Therefore, if management convinces them that safety consciousness is the proper attitude while on the job, it will be much simpler to show them this same safety consciousness is proper off the job.

At various times we all have overlooked or neglected certain phases of our safety program. Once they are brought to our attention, or we recognize them, we wonder why they have been overlooked so long. Then we concentrate on them until we whip them into line. This is the category in which I place a major portion of our present off-the-job safety problem.

It is not surprising that management has begun to look at off-the-job accidents as a major problem. Take our plant, the Sabine River Works at Orange, Tex. During 1953 and 1954, our 1,800 employees worked without a lost-time injury. As a matter of record, during this time they accumulated 812 safe days and 8,500,000 safe hours. We were really proud of them. But, also in 1953, we were starting to add emphasis and collect statistics on our off-the-job performance. Things did not look too bad; in 1953 we showed only 22 off-the-job injuries resulting in 304 lost man-days. Then in 1954 our program became more detailed and more thorough, and we recorded

Mr. Methner's talk was part of a panel discussion on off-the-job safety of the Petroleum Section of the National Safety Council held October 25, 1956, at the 44th National Safety Congress in Chicago, Ill.

SAFETY

Plant

57 off-the-job injuries which resulted in 1,138 lost man-days. I think we will all agree that 1,138 lost man-days in one year with 1,800 persons is a problem. So, it was decided that in 1955 we would really attack this problem.

A thorough study of most phases of the off-the-job problem created a number of comments such as:

1. It is none of the company's business what employees do after they leave the plant.

2. Management would do more harm than good prying into employees' personal lives.

3. Employees would be fearful of reporting the details of their off-plant accidents for fear it would affect their job status.

Other comments were received which indicated that the problem was a tough one. On the other side of the picture was the fact that something had to be done for a number of reasons such as:

1. Off-plant accidents have adverse psychological effects through worry about the employees' ability to work safely on the job.

2. Absenteeism is costly, regardless of its origin, and the fewer off-the-job injuries we have, the less absenteeism we shall have.

3. Accidents are costly, regardless of where they occur. Any cost in off-the-job accidents affects both employee and employer. Therefore, any efforts to reduce this cost would prove mutually beneficial.

4. Most important—whom are we talking about when we discuss an "off-the-job safety program?" It is our employees, our friends. Let's forget the cold cash benefits of a good safety program for a moment; here is an opportunity to help these friends reduce their suffering from accidents. While safety will always be an intangible subject, its rewards are a source of pride for participants. This pride comes from the feeling of helping a friend and fellow employee, including his family. Yes, the humanitarian benefits alone seem to prove and have proved worth the effort.

During this study, it became apparent to us that the success of any type of program we attempted would hinge on employee acceptance. So we contacted a number of employees. They were overwhelmingly in favor of an active program. This was very encouraging, so the central safety committee approved a proposed program.

To remove off-plant safety activities from the casual state and give them more purpose, we formulated a written off-the-job safety program. Naturally, our first concern for this program was to be sure it was clear to all supervision because they were the ones who had to "sell" it to employees. The program was set up in six steps, as follows:

1. Department heads would hold a kickoff meeting with their respective supervision during January. The departmental program would be explained thoroughly at that time.
2. Publicity would be adequate but not overdone. It would consist of articles in the plant newspaper and posters on bulletin boards.
3. Supervision would solicit, not require, the help of employees injured off the job in establishing some safety principles which might prevent a similar injury to another employee. A simple form would be provided for this purpose. These safety considerations, where applicable, would be published without reference to any individual.
4. Emphasis will be placed on off-plant safety by the following means:
   a. Divisional kickoff safety meetings will be held following departmental meetings.
   b. Off-plant safety will be discussed in employee reviews.
   c. A portion of all future safety meetings will be devoted to off-plant safety. Group participation will be stressed by having individuals of each group conduct some of these sessions.
   d. The safety division will intensify its efforts to get films, suggest programs, and assist supervision in every way possible.
   e. Minutes of outstanding meetings will be published to the plant.
   f. Daily contacts will be used to keep our people thinking of safety 24 hours a day.
   g. Periodically, useful leaflets on off-plant safety will be sent to the home or given out in the plant.
5. The safety division will institute a monthly off-plant safety performance report.
6. The off-plant safety program will be reviewed quarterly by the central safety committee.

Each member of supervision was then asked to be sure that every member of his group fully understood fundamentals of the program. To do this, supervision must be able to explain the "who, how, what, and why" of the entire program.

Supervision then was requested to go one step further and explain to employees that one of our main ob-

jectives in the program was "participation" or "the act of sharing in common." We felt that the degree of participation we obtained would govern the success or failure of the program.

Certainly, that has proved to be true. With a year and a half of the stepped-up program behind us for review, we feel that the employees' participation (with their families' help) has helped our program progress—one word of caution: Be sure this participation is voluntary. This will avoid many of the pitfalls experienced when employees feel that something is forced on them. It takes a lot more salesmanship to get employees to participate voluntarily, but the results are worth it.

I would also like to give credit to our Wilmington Safety and Fire Protection Division. It has provided invaluable aid in our program. And, in addition to our local program, it conducts a companywide program and distributes for campaign purposes a recap of the entire company's performance.

Our next point to give the program continuity and regularity was to consider "What rules would be necessary?" We were not concerned here with rules for the employee's conduct off the job, but rules to govern administration of the program. We felt three qualities should be considered in formulating any off-the-job safety rules: They must be consistent and clear, and there must be a need for them.

Most will agree that a few rules are necessary to guide a program. Actually we have tried to avoid established formal rules for the program except where needed to set a pattern such as [by answering such questions as] "What constitutes a lost-time off-the-job injury?" Basically, we classify off-the-job injuries identically with the American Standards Association's classification of on-the-job injuries. The rules also govern reporting, investigating, and publicizing details of injuries. In regard to rules for off-the-job activities, we hope to teach employees that each law, each fire code, and each safety code is a rule for his conduct off the job.

Our aim in this phase of the program is "implementation," or "the act of fulfilling by concrete measures." Here again, with the idea that an individual wants to do what he is convinced is right, we feel that needed rules, properly administered, will serve this purpose.

At this time, I would like to give credit to the Beaumont District of the Department of Public Safety. Captain Layne, Officer Culbertson, and others have made some 20 trips to our plant the past year to discuss "the traffic responsibility law" and answer traffic safety questions of our employees. Everyone realizes that these fellows are busy, and numerous comments bear out the employees' appreciation of their services. We feel this willingness to help, demonstrated by state police, has given our employees a clearer picture of the individual's responsibilities.

Law Enforcement

One other important point that the Department of Public Safety is helping our employees recognize is the individual's responsibility to demand more enforcement of our laws. It appears that our courts are just like us as individuals in that they will do what the public wants them to do. As long as we are apathetic toward traffic violators, we cannot expect the courts to be strict. If we, as jurymen, continue to recommend leniency in traffic violations, we cannot expect police and courts to be stern. We all know that traffic accidents are increasing, but until enough of us accept our individual responsibilities to do something about it, we cannot expect any improvement. Therefore, if our employees and I get to discussing this need and your employees and you get to discussing it, maybe in time enough of us will get off our haunches to take some preventive action.

It was obvious that this program was going to require a lot of promotion. We already had all the mediums of our on-plant safety promotional program available so we utilized each of them to a larger degree. But we felt that our real opportunity was at meetings. We asked supervision to devote at least a portion of all safety meetings to off-the-job safety.

In addition, we asked supervision to try to get maximum participation from individuals. We emphasized that, if we expected any results from these meetings, they must be "educational, of interest, and timely." We felt that if we could get proper consideration of these features for each meeting, the meetings would then provide the "motivation" or "the stimulating action" so necessary in a long-range program.

Results of this portion of our program were amazing. Virtually every employee in the plant demonstrated a keen interest in the meetings. We have received minutes of a number of excellent safety meetings, totally prepared and presented by nonsupervisory employees. One example, to illustrate this point, occurred when an engineer got the idea of recording personal interviews with employees who had suffered off-the-job injuries. He told us that each employee he contacted was willing to cooperate and personally describe details of his accident as his contribution to the program. He ended up with a 30-minute meeting which included recorded interviews with six employees and detailed sketches of how their accidents occurred. These sketches then were projected on a screen while employees' recordings were played.

In this and many other instances, the meetings were prepared for only one group but were considered so interesting that numerous other groups scheduled them. This intergroup exchanging of meetings proved helpful in maintaining interest in the program. In other instances when we in safety received minutes of an especially well-prepared meeting, we reproduced them under the employee's name and division and distributed them to all supervision as a safety meeting aid. I think one of my most enjoyable off-the-job safety meetings was to listen to two workers present a skit on off-the-job accidents to the janitor and landscaping group.

One of my pet peeves is to hear someone in charge of a safety meet-

ing say that there is nothing interesting to discuss, that safety is too dull and repetitive. To me this indicates a lack of conviction about safety because, if we are interested, there is ample safety material available in our daily life to provide interesting, educational, and timely topics if we put safety in its proper place—first.

In my opinion, the least understood part of our safety program is on- or off-the-job statistics. I am sure each of you has been faced with derogatory comments concerning safety statistics. We have found it well worth our time to discuss these statistics in safety meetings and with individuals to show them two things:

1. That safety statistics are compiled to tell us "what" is going on; we try to avoid any "who" in statistics. If the statistics should demonstrate that an individual is suffering an abnormal number of off-plant injuries, his supervision then is requested to devote special attention to helping him find out why he is having so many accidents.

2. That statistics are necessary in any well-planned program. Management deserves some type of evaluation of any expenditure. Just as production uses gallons or pounds to measure its performance or the mechanical groups use work-order figures to measure their performance, we in safety can measure plant performance through safety statistics.

In establishing safety statistics, a number of important points should be considered:

Set up your pattern to make you constantly aware of any trends, good or bad.

Be sure the statistics are concise so that no one will have to wade through superfluous figures to get exactly what you want to show them.

Then with concise trends, supervision and the individual employee may be shown where statistics are helpful. Point out that no one is interested in the figures or records as such; it is what those figures portray that is important. For example, if I say, "The Sabine River Works has worked one million safe hours," the important thing is not the figure "one million" but that my fellow employees and I have worked one hundred days without suffering a serious injury. (We accumulate some ten thousand hours per day, so each one hundred days adds up to one million hours.)

The fourth point of statistics followup is vital to any program. So often we start a good program, tell people about it, and then forget it. A year or so later we go back and find it just sputtered and died. If we want to gain maximum efficiency from our program, we must check constantly to be sure that each member of supervision actively follows up on the picture which our statistics present.

If these qualities are active in your statistical program, then certainly you should have a clearer picture of our objective, elimination of off-the-job injuries. [The speaker showed slides illustrating basic statistics used in his off-the-job safety program.]

Now, so far we have discussed the mechanics of an off-the-job safety program, and to the majority, it has been merely a review. Like most reviews, it is mentally associated with your program or plans.

What Can One Person Do?

Let's assume that this discussion has helped you with some new ideas. Are you then asking yourself that "$64,000 question": "What can I do as one individual?"

I know that sometimes I look at the help we in safety are getting from various law agencies, the national Advertising Council, and such TV programs as "Dodge for Life" and ask myself, "If *they* can't influence the public, then how can *I* hope to?" Then I think of a little rhyme I read somewhere:

"Sitting still and wishing
Makes no person great;
The Good Lord sends us fishing,
But *we* must dig the bait."

All we can do is redouble our individual efforts and dig more bait. I think back and realize that pioneers in industrial safety must have had, on occasion, the same futile feeling at times, but they stayed in there swinging—and have continually reduced the overall injury-frequency rate until in 1954 it was only 7.22 or one-fourth of that in 1926. I hesitate to think what our national off-the-job injury-frequency rate would be without each of the present off-the-job safety activities, and I firmly believe that each of us will accept the problem as a challenge.

I think this challenge may be more acceptable if we stop and realize that a majority of people are interested in safety but are just complacent. The crying need is for leaders who are willing to set the example in combatting this complacency. We all are aware that management has less control over the employee's actions off the job than on. We must endeavor to sell the individual on his personal responsibilities toward off-the-job safety.

Nowhere in the world can we find a more independent or wonderful people—nor a people more complacent—than in the United States. None of us thinks he will be the next accident victim; each of us firmly believes he lives a charmed life. So any attempt to mold this complacent attitude toward a saner and safer everyday life will require a lot of planning and a world of effort.

Even if you have not started your off-the-job safety program yet, don't let its magnitude discourage you. Instead, set the example; accept your personal responsibility for contributing your fair share to the overall program. Sometimes, when you wonder at the value of starting such a huge undertaking, think of this old Chinese proverb: "The journey of a thousand miles begins with the first step."

We in safety can prepare and present a good program, then watch its trends up and down, and, any time we care to, find plenty of excuses why it is not working 100 percent. But we know that every program has a key and safety programs are no exception. An honest analysis of your off-the-job safety program will clearly show that the key to its success is *you*.

If you have the necessary fortitude and properly apply it, then you will be making a giant stride toward solving the off-the-job safety problem.

ED. PULLIAM, formerly supervisor, Accident Control Section, Kentucky Department of Health, Louisville, Ky., states that this material is based on the surveys they conducted in Harrison and Marshall Counties. The preventive angles were worked up from many other sources of information. This was produced by the Accident Control Section (now the Division of Accident Prevention of which H. Earle Belue is the director) of the Kentucky Department of Health and can be useful in planning a broadcast, 5-minute talk, a poster, or an exhibit.

THE STEPS AND STAIRWAYS

IN THE HARRISON County survey, steps and stairways ranked third in place of occurrence of accidents, and they ranked fourth in the Marshall County survey.

Stairways were the source of about 15 percent of all falls in and around the house.

Suggestions for Making Steps and Stairways Safer

A. Construction of steps.
   1. Every stair tread should be equal and at least 10 inches wide. Risers should all be the same height and should not exceed 7¾ inches.
   2. Stairs should not be too steep. The proper slope is between 30° and 36°.
   3. In long flights of stairs spacious intermediate landings should be provided. Stairs of less than three steps leading from landings are dangerous, particularly for older people or anyone with poor vision.
   4. There should be plenty of head room on a stairway. Low overhead clearance causes many falls.
   5. Every stairway and step should have a railing. A handrail should be strong and securely placed, continuous from foot to head of the stairway, and not less than 31 inches high. Handrails on both sides are desirable—and necessary if the stairway is 44 inches or more wide.
   6. Stairways should have balusters not more than 4 inches apart so that children cannot slip through and fall.
   7. Stairways should be well lighted with three-way light switches at the tops and bottoms of the steps.
   8. Ramps are in order where there is a one-step (i.e. a split-level) room or entryway.

B. Maintaining a safe stairway.
   1. There should be nonslip finishes on all treads and approaches. Slippery finishes and polishes should not be used on stair treads.
   2. Repair steps and stairways as soon as you notice a defect in them. Steps that slope forward are especially dangerous. Worn or "cupped" treads can cause a person to trip.
   3. The stairway should be kept clear at all times. Mops, brooms, buckets, and other items can cause serious falls.
   4. If rubber treads are used, they should be securely tacked down. Loose carpeting must be secured also.
   5. Scatter rugs at the top and bottom of stairs invite accidents. Take them away from these two places altogether.
   6. Remove snow and ice from steps and stairs as soon as possible. Use ashes or salt to eliminate ice patches that are left.
   7. Paint the top and bottom basement steps white to improve visibility. Painting is not a substitute for good lighting, however.

C. The safe use of steps and stairways.
   1. The handrail of a stairway should be used by all members of the family.
   2. Teach young children to use the handrail.
   3. Closed gates at the top and bottom of stairway will protect the very young child and help to keep toys off the stairway.
   4. An extra telephone in the bedroom upstairs and in the basement will prevent many accidents that happen to people running up or down steps to answer the phone.
   5. Always take your time when going up or down steps.
   6. Keep one hand free to use the handrail when on the stairway. Don't carry so much that you can't see where you are going.
   7. Don't permit children to slide down the banister.
   8. Don't permit children to run up and down steps.
   9. Do not allow children to play on steps.

STEP AND LADDER SAFETY

THIS 5-MINUTE radio script is from Miss Mae Frazier of the Johnson County Health Department which is cooperating in the home accident prevention program sponsored by the Kentucky Department of Health.

MRS. AKIN: It is possible that falls in the house cause more people to see stars inside the house than outside. At least they account for about half of the total number of home accidents. Stairways are subject to all hazards of level floors and more too. Consequently it is not surprising that they are the location of about 15 percent of all falls in the home. What is your comment on step safety, Miss Frazier?

MISS FRAZIER: Walk safely on stairs, or an accident will result on the safest stairway. We must not hurry up or down stairs. We must always look at the step ahead and use the handrail. Objects should be carried so that the next step is always visible. Remember a handrail is of no value unless the person who starts to fall is in a position to grab it instantly.

MRS. AKIN: Pointed and tapering steps are among the greatest hazards to be found in the home. Any beauty which a circular stairway may have is more than offset by the dangers of the steps.

MISS FRAZIER: Lack of uniformity is one of the most common defects of stairway steps. Even though each step is safe, danger can still exist if there are differences from one step to another. Be sure that all steps in any one flight are constructed exactly alike. Replace all broken or worn parts with parts of the same thickness, width, length, et cetera. Improper dimensions of steps involve several factors. The tread of each step is important and should accommodate adult feet without the necessity of turning the feet sideways. Eleven inches is a good dimension to keep in mind for the tread, and 7 inches is a practical riser height. Do you have other suggestions for stairway safety, Mrs. Akin?

MRS. AKIN: Yes, no handrail or a handrail that is weak or poorly placed is another common defect of stairways. It is an automatic reaction to reach out and grab for support the moment we start to fall. For this reason a strong handrail in a convenient location has helped to check many falls that might otherwise have been serious.

MISS FRAZIER: Stairways and landings used for storage present an extremely dangerous situation. Many people have received fatal falls as a result of this common practice.

MRS. AKIN: Loose or a poor type of covering should be avoided. Natural wood tread, varnished and unwaxed, is much safer than a heavily carpeted covering. Heavy carpet often changes the proportion between the tread and the riser. It also decreases the advantage of the overhanging edge of the step which makes walking less safe.

MISS FRAZIER: Painting the top and bottom basement step white is a good idea but should not be substituted for sufficient light.

MRS. AKIN: Maybe we should leave stairway safety now and discuss some safety precautions with ladders. Every household should have a ladder. The use of chairs, boxes, barrels, et cetera, as substitutes for ladders is a dangerous practice. Probably more accidents result in this way than from the use of defective ladders. If you have a safe ladder, use it. If not, get one rather than take the chance of having an accident. Did you want to say something about the use of ladders, Miss Frazier?

MISS FRAZIER: Yes, a safe ladder eliminates many chances for accidents, but, if we do not use it safely, we can still be involved in an accident. Some unsafe uses of ladders are:

1. Standing ladders too straight or too slopingly.

2. Placing the base of the ladder on a slippery or uneven surface. Some surfaces may be even but not firm enough to remain even when someone starts to climb the ladder.

3. Having the upper part of a straight ladder resting against a slippery or uneven surface.

4. Climbing too fast or climbing without holding on securely.

5. Walking down a ladder backwards [with the back to the ladder].

6. Reaching too far to the side instead of moving the ladder to a new location.

7. Standing on the top rung or step which causes a greater chance of losing one's balance.

MRS. AKIN: Sometimes accidents happen because of the unsafe conditions of ladders such as:

1. Steps or rungs that are loose or broken.

2. Sides that are weak or cracked.

3. Rungs which are spaced too far apart or too close or not uniformly.

4. Rough, splintery surfaces.

MISS FRAZIER: Ladders are sometimes needed quickly in case of fire or other emergencies. They should be kept in good repair and stored safely and be easily accessible.

MRS. AKIN: Protection from weather damage is an important item to consider when selecting a storage space. Never paint ladders. Paint conceals cracks and breaks. Linseed oil is a better preservative. Tomorrow we will talk with you on the subject, "Who Is Responsible for Home Safety?"

THIS SCRIPT WAS produced by the WGAR Broadcasting Company and the Ohio State Safety Council, Cleveland, Ohio. H. G. J. Hays, executive secretary and treasurer, Ohio State Safety Council, states that this is one of a series of scripts the anecdotes for which were derived from a number of sources, among them newspapers and the annual Freak Squeak story of the National Safety Council. Occasionally someone sends an anecdote to him.

The Cantankerous Cockroach

VOICE: "So Help Me; It's the Truth!"

ANNOUNCER: Station _____ and the Ohio State Safety Council present "So Help Me," a 5-minute program featuring the Voice of Safety as he tells us of some of the freak squeaks, the crazy goings-on as your fellow citizens got themselves involved in accidents. This evening, for instance, the Voice of Safety tells us about the celebrated case of the cantankerous cockroach.

VOICE: "So Help Me; It's the Truth!"

A bakery employee was descending some stairs made slippery by spilled cake frosting. He hadn't taken two steps when he looked into the leering eyes of the biggest cockroach he ever saw. He aimed a careful kick at the roach with his right foot. The roach ducked, naturally. The man's left, and anchor, foot slipped in the frosting, and he hurtled end over end to the floor below. His kicking leg was broken. The cockroach appeared pleased.

Of course, you know it doesn't take the concerted action of a cockroach and some cake frosting to throw a person down a flight of stairs. People are thrown thus every day in a much simpler way. A scrub bucket or a mop, a pile of freshly ironed clothes, even a magazine on the step can do it.

We heard the story of a woman who had a habit of leaving her cleaning things at the top of the basement stairs until she made a trip to the cellar for some other purpose. Maybe she thought this a good, energy saving idea, but her husband didn't think much of it at all. He usually entered the house by the side door and hung his work coat and hat in the closet off the landing. He got plain sick and tired of stumbling over those buckets, mops, brushes, and things piled on the stairs. So he decided to cure his wife of the habit, and he chose a drastic but effective way to do it. He simply heaved the whole works into the basement. Of course, the racket made his wife think he had fallen, as he wanted her to think. After about three sessions of this kind, she was convinced the stairs were a dangerous place to store stuff. Let's make one point clear, though: *we definitely do not* recommend that irate husband's technique for clearing the stairs.

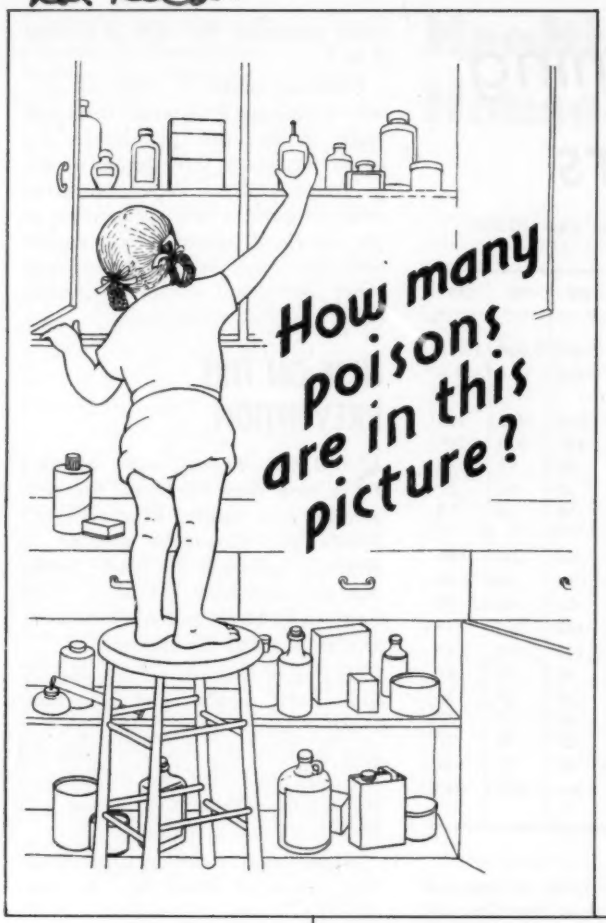
Another thing that can make a stairway dangerous is poor lighting. Shadows make stairs very tricky. Don't travel a stairway that's in semidarkness. Either turn on a light or carry a flashlight so you can see the steps and anything that might be on them. It's a good idea to have at least one handrail on a stairway, too. It can come in awfully handy when you start to fall or stumble. Better yet are two rails so that a person can grab ahold with whatever hand happens to be free.

Of course, if you put nine handrails up, it's not going to help you if you're carrying such a load that it takes both hands to handle it. Always keep one hand free, preferably the one nearest the rail. There are countless cases of women who were carrying so much laundry that, when they lost their balance, they couldn't drop the bundle in time to grab the rail. And while we're speaking of load limits, don't stack your arms so high that you can't see around or over them. You have to see where you're going if you want to avoid a tumble. It's a good idea, too, to fasten down carpets or rugs on landings or at the top and bottom of stairs so they can't skid or throw you down the steps.

Also *walk* up and down steps. Climbing stairs requires several times the energy you spend walking on a level. Running on stairs takes 10 to 12 times as much energy as walking, but the extra energy isn't the only argument against running. It's much easier to stumble or lose your balance when you run.

You football fans ought to remember Red Cagle, the Army star of a few years back. They say he was the most agile, sure-footed, broken field runner that ever wore the Army uniform. About 5 o'clock on the afternoon before a holiday, he called his wife to tell her that he'd been delayed at the office, but was on his way. A little after six he was found in an unconscious heap at the bottom of the subway stairs. Red Cagle's agility and muscular poise couldn't keep him safe while running on a staircase. Neither will yours; so take it easy—walk!

ANNOUNCER: You have been listening to "So Help Me; It's the Truth" presented by _____ each _____ at this time for the Ohio State Safety Council. The Voice of Safety will be back again next week with the story of another freak accident and some tips on how you and I can stay alive and healthy. "So Help Me; It's the Truth!"



DO YOU KNOW?

THIS PAMPHLET was published by the Division of Health Education, Louisville and Jefferson County Department of Public Health, and the Department of Pediatrics, School of Medicine, University of Louisville. Mrs. Marjorie Clos, director of the division of health education of the department states that they have displayed these leaflets in the pamphlet racks at all of the health centers, Louisville General Hospital, and the Medical Association and distributed them to mothers in the well-baby clinics. Also, a poisoning control exhibit which included the leaflets was set up at Louisville General Hospital, the Kentucky Medical Association, the Kentucky Public Health Association, and the Scout-O-Rama show at the fairgrounds. The cover and the inside spread of this four-page leaflet are reproduced here.

All are potential poisons. There are twenty-six poisoning agents shown on the front cover. Some of which are:

FURNITURE POLISH
TOILET CLEANERS
DRAIN CLEANERS
RAT POISONS
LIGHTER FLUID
CAMPHORATED OIL
RUBBING ALCOHOL
DETERGENTS
KEROSENE
ASPIRIN
BLEACH
PAINT
INK
LYE
CAFFEINE TABLETS
OIL OF WINTERGREEN
TOOTHACHE DROPS
NOSE SPRAY
HAIR TONIC
COLD CREAMS
INSECTICIDES
DEODORANTS
TURPENTINE
MEDICINES
GASOLINE
PERFUME
AMMONIA
ALCOHOL

HOW TO PREVENT POISONINGS

Keep all drugs, poisons and household chemicals out of the reach of children and away from food. Children can climb, so put chemicals up high or under lock.

Be sure all poisons are clearly marked. This can be done with adhesive tape or by using a special marker. Do not store them in food or beverage containers.

When you throw away drugs or dangerous materials, be sure the contents cannot be reached by children or pets.

Weed out the left overs regularly from your medicine chest -- especially any prescription drug that your physician ordered for a particular illness.

Safeguard tablets which are candied, flavored or colored since children will eat them like candy.

Safeguard food or food utensils when using insect sprays, aerosol mists, rat poisons, weed killers, or cleaning agents.

Be sure all medicines are labeled and dated. Do not get or give medicines in the dark.

Small children should be under constant supervision. Remember children one, two or three years of age are most apt to poison themselves.

Accidental Poisoning in Recent Years

NUMBER OF DEATHS FROM ACCIDENTAL POISONING BY SOLIDS AND LIQUIDS
United States, 1949 to 1955

Agency of Poisoning	1955	1954	1953	1952	1951	1950	1949
Total—Number of deaths	1,431	1,339	1,391	1,440	1,497	1,584	1,634
Death rate per 1,000,000 population	8.7	8.3	8.8	9.2	9.8	10.4	11.0
Barbituric acid and derivatives	411	345	337	327	363	409	466
Drugs and medicines (except barbiturates)	345	356	327	352	297	332	291
Aspirin and other salicylates	105	117	98	113	89	99	70
Morphine, other opium derivatives	40	33	31	25	28	22	27
Bromides	6	13	16	16	14	14	8
Chloral hydrate, paraldehyde, other analgesics and soporifics	100	91	82	95	94	109	92
Strychnine	17	14	21	24	16	23	22
Other and unspecified drugs	77	88	79	79	56	65	72
Alcohol	223	199	221	239	269	246	239
Petroleum products	76	94	116	122	102	112	117
Caustic alkalies, acids	51	47	63	72	62	78	87
Carbon tetrachloride, turpentine, etc.	44	45	47	46	48	34	31
Lead and compounds	64	41	65	57	68	61	57
Arsenic, antimony, and compounds	41	37	52	49	57	58	57
Mercury and compounds	10	7	9	13	17	23	24
Other and unspecified	166	168	154	163	214	231	265

Source of basic data: Reports of National Office of Vital Statistics.

THE DEATH RATE from accidental poisoning by solids and liquids in the United States decreased steadily from 11.0 per million population in 1949 to 8.3 in 1954, then increased slightly to 8.7 in 1955, the latest figure available.*

This recent rise reflected largely the increase in fatalities from accidental poisoning by barbituric acid and its derivatives. As the table shows, in 1955 there were 411 such deaths—about 30 percent of the total—compared with 345 in 1954. Actually, the number of deaths from this cause has been increasing since 1952, reversing the trend in the years immediately preceding. It is not clear why, with more stringent restrictions being placed on the sale of barbiturates in many localities, the improvement in mortality recorded from 1949 to 1952 has not continued.

The death toll from drugs and medicines other than barbiturates has not changed appreciably in recent years. In 1955 they accounted for 345 deaths or for one fourth of the total mortality from accidental poisoning in our country. The majority of deaths in this category resulted from poisoning by the salicylates or from overdoses of chloral hydrate, paraldehyde, and other analgesics and soporifics. Strychnine, however, is responsible for relatively few deaths—far less than the toll it took several decades ago.

At least one in every seven deaths from accidental poisoning is due to the ingestion of wood, denatured, or other alcohols. Most prominent among the other poisons are petroleum products, lead, and caustic alkalies and acids.

Deaths from accidental poisoning are about 1½ times as frequent among males as among females. Each of the substances listed in the table, except the barbiturates, takes a higher toll among males; for alcohol poisoning the ratio is at least 4 to 1.

Children under 5 years af age, who constitute little more than one tenth of the total population, account for nearly three tenths of the poisoning fatalities. Preschool youngsters comprise a large proportion of the victims of poisoning from aspirin and other salicylates, kerosene and other petroleum products, insecticides, and lead compounds.

*This article has been reprinted from *Statistical Bulletin*, vol. 38, February 1957, pp. 9-10, published by the Metropolitan Life Insurance Co., New York, N. Y.

FILM ON FIRE PREVENTION

SID DAVIS PRODUCTIONS released a new film on home fire prevention. It is entitled *Where There's Smoke* and directs its message to children, although the whole family can get something out of it. This movie is in black and white or color and runs about 10 minutes.

The story is about Johnny and his little sister, Laurie, and how their home burned down. The picture goes back to the day preceding the fire and points out the fire hazards present throughout their house and how they could be eliminated.

Those most common and prevalent causes of home fires are pictured: oily rags, frayed electric cords and faulty wiring, overloaded extension cords, carelessness with smoking and lighted matches, kitchen hazards, improper placing and use of electric heaters, accumulation of combustible trash, hazardous use of fire with children's chemistry sets, etc. Stress on the necessity of immediately calling the fire department should a fire occur and eliminating hazards of fire is woven into the story. The last part of the film shows the fire department in action in response to the alarm turned in by Johnny, with a dramatic rescue of the family dog. This makes the film particularly appealing to elementary school children.

Because so much material and information is crowded into 10 minutes, the film's real value seems to be as an introduction or review of fire prevention. Prints are available for purchase and preview from Sid Davis Productions, 2500 S. La Brea Avenue, Los Angeles 16, Calif.

Health Problems of Household Chemicals

COUNCIL ON DRUGS*
Formerly the Council on Pharmacy and Chemistry

Report to the Council

The Council has authorized publication of the following report.

H. D. KAUTZ, M.D., *Secretary.*

The lack of identification of hazardous ingredients and precautionary labeling on the wide variety of small, packaged chemical items in general use and the influence of this lack of identification on their careless and improper handling and storage is the underlying theme of this report. The Board of Trustees of the American Medical Association recently authorized the Committee on Toxicology to develop model legislation on labeling of the many possibly harmful chemicals not now so regulated. It was recommended that interested organizations and individuals with experience in this problem be invited to collaborate. A legislative conference to consider the formulation of a uniform chemical label law will be held on completion of a current study of existing statutes pertaining to the labeling of chemicals.

BERNARD E. CONLEY, PH.D.,
Secretary,
Committee on Toxicology

HEALTH PROBLEMS OCCURRING FROM HOUSEHOLD CHEMICALS, INCLUDING DRUGS

By Irvin Kerlan, M.D.

IN 1955[1] [see references page 30] solid and liquid substances were designated as the causative agents in 1,431 deaths due to accidental poisoning. Gases and vapors were responsible for 1,163 deaths. Suicide from self-inflicted poisoning from solid and liquid substances and gases accounted for 3,429 additional deaths. For practical purposes these 6,023 deaths occur in and about the home. Of the 1,431 accidental poisonings by liquid and solid substances, 358 occurred in children under 5 years of age; 44 of the 1,163 deaths due to gases and vapors were found in children under 5 years.

These imposing statistics do not give us an absolute picture of the problem; the number of nonfatal poisonings is estimated to be 100 to 150 times the number of fatalities. It should be recognized, too, that, although the present death rate for all types of poisoning from solid and liquid substances is about one-third that of 50 years ago, the total number of preventable deaths continues to be a large and impressive one.

Prevention

In evaluating the persistently high number of accidental poisonings (from household products) that have a causal relationship to environmental factors, it becomes apparent that many individuals do not regard as harmful many liquid or solid substances that they know are inedible. For example, physicians appreciate this fact when called to treat the child who has ingested furniture polish, left accessible by his mother, who did not know that such polish may be capable of poisoning.

This unawareness may be caused by a lack of informative and precautionary labeling on numerous household items to identify their composition; their potentialities for harm, if any; directions for safe use; and methods of emergency treatment in case of misuse. Lack of this type of information on the many different items available in every pantry, medicine cabinet, basement, garage, and elsewhere around the home may serve as an important basis for careless or improper handling or storage. The Committee on Toxicology of the American Medical Association estimates that there are a quarter of a million different brand-name products available.

Inadequate information on the label is an important gap in protection of the consumer against accidental poisoning by household products because it is a major obstacle to the successful attack on the problem. Not only does the failure to label household articles informatively create circumstances that lead to accidents, but it frequently enhances their seriousness by complicating proper treatment. Physicians or others providing emergency treatment need to know the identity of the offending substance. Lack of this information frequently results in the use of vague and indefinite terminology and consequently poor case-recording. Thus, unsatisfactory treatment of the patient may occur as well as inaccurate statistics, which tend to obscure the problem and thus complicate its solution.

To ascertain the contents of potentially harmful household products in order to assist physicians, pharmacists, and others who seek such information in emergency situations, Rodman[2] conducted an extensive survey of various manufacturers regarding household products not covered by existing federal laws. He concluded that there is need for more adequate labeling of articles concerning contents and precautions against misuse as well as for prompt and continued education of users.

Hazardous Household Items

Household articles may be readily separated into two groups on the basis of whether their labeling and

*This article entitled "Health Problems Occurring from Household Chemicals, Including Drugs" has been reprinted from the *Journal of the American Medical Association*, "Council on Drugs, Report to the Council," vol. 163, No. 14, pp. 1254-1257, April 6, 1957, published by the American Medical Association, Chicago, Ill.

Dr. Kerlan is Associate Medical Director and Chief, Research and Reference Branch, Division of Medicine, Food and Drug Administration, Department of Health, Education, and Welfare, Washington, D. C.

Based on an address read before the Second Symposium on Hazardous Household Chemicals and Agricultural Poisons, sponsored by the Committee on Toxicology and the Committee on Pesticides, American Medical Association, at the annual meeting of the American Association for the Advancement of Science, Atlanta, Ga., Dec. 29, 1955.

packaging are subject to federal statutory control in the interest of protection of the consumer against accidental poisoning (see table). Certain states and municipalities have taken forthright steps to control some of these offending items.

Drugs and disinfectants intended for use on man and animals are subject to the Federal Food, Drug, and Cosmetics Act of 1938, enforced by the Food and Drug Administration. Disinfectants for inanimate objects and pesticides are subject to the Insecticide, Fungicide, and Rodenticide Act of 1947, enforced by the United States Department of Agriculture. Recently the FDA procedure for setting safe tolerances for pesticides on crops was revised and simplified. The 12 caustic and corrosive acids and alkalis in certain concentrations designated in the Federal Caustic Poison Act of 1927 are also controlled by the FDA. The latter legislation was achieved through the efforts of the American Medical Association. Although many new chemicals have been introduced since the enactment of the law, it has never been amended to provide for these developments.

Status of Household Articles Under Federal Laws Regarding Identity of Contents and Precautions in Labeling

Regulated	Nonregulated
Drugs	Cosmetics
	Heating, power, and lighting fuels
Disinfectants	Household care and repair articles, including water repellents, leather dressings, preservatives
Economic poisons (pesticides)	Household cleansers (other than acids and alkalis), including soaps and other detergents, solvent cleaning fluids, polishes and waxes, deodorizers
Caustic and corrosive acids and alkalis	Paint and accessories, including thinners, removers
	Miscellaneous items, such as toys, inks and dyes, hobby supplies, novelties

All the federal laws cited have the common requirement that the active ingredients be declared on labels by their common names, together with directions for use and warnings against injury under specified conditions of use. In addition, the 12 caustics and corrosives and those pesticides (economic poisons) deemed highly toxic to man must carry the poison legend and directions for emergency treatment.

Drugs

Among the drugs, methyl salicylate, aspirin, certain other salicylates, and iron deserve to be specially mentioned, particularly with regard to poisoning in children.

Since methyl salicylate has a long history of fatalities caused by accidental ingestion, the FDA requires that the label of any drug containing over 5% of this chemical bear a conspicuous warning that it be kept out of the reach of children. This warning has been widely adopted. With proper attention to this admonition, a reduction in serious poisonings and deaths from misuse of this drug should be achieved.

Aspirin and other salicylates are among the substances most frequently misused by children. This fact is revealed by morbidity statistics compiled by the poisoning control centers, sponsored by the American Academy of Pediatrics and other health groups, and by mortality statistics of the National Office of Vital Statistics. On Feb. 14, 1955, the FDA invited the Medical Advisory Panel on the Accidental Ingestion and Misuse of Salicylate Preparations by Children to consider this problem and its solution in the interest of protecting the public health. As a result, the following recommendations were made concerning the labeling that should be employed for salicylate preparations to meet the requirements of certain provisions of the Federal Food, Drug, and Cosmetic Act. A period of six months from the date of publication[3] was allowed for modification of existing labeling to comply with these requirements.

1. The labels of such preparations should carry a warning, such as the following:

"Warning: Keep out of the reach of children" or "Warning: Keep this and all medications out of the reach of children."

Some manufacturers seem to agree with the broad educational and constructive aspects of this latter caution and are voluntarily considering its use on many other types of medications.

2. In lieu of specific dosage recommendations for children under 3 years of age, the directions for oral use of salicylate preparations should bear a statement such as:

"For children under 3 years of age consult your physician."

Some physicians who have attributed the major problem of salicylates not only to their widespread availability but also to the introduction of "baby size" or "candy type" aspirin have questioned the philosophy of "candy" medication.[4]

Iron sulfate is generally regarded as one of the safest medicaments to have on hand in the home. Because of its ready availability, however, serious poisonings and deaths have been reported within recent years, with a frequency that has become the basis for much concern. The antihistaminics and other recently introduced drugs are misused by children and appear as causative agents in poisonings. Only when it is widely recognized that drugs should be used carefully and stored out of the reach of children may we expect progress in curtailing the present incidence of accidental poisoning.

Pesticides

With the rapid general introduction of potent new insecticides and rodenticides after World War II, the already sizable pesticide problem was increased. Trouble has been caused in the past by the moth repellents containing camphor, naphthalene, or *p*-dichlorobenzene; the roach poisons containing fluorine; and the rat poisons containing arsenic, phosphorus, or thallium. Recently the so-called organic phosphorus insecticides, chlordane, chlorophenothane (DDT), sodium fluoroacetate (1080), and others, have been responsible for deaths and severe poisonings despite the stringent provisions of existing legislation.

Acids and Alkalis

Deaths and serious poisoning from lye and other caustic and corrosive acids and alkalis covered by the Federal Caustic Poison Act have de-

clined markedly in most sections of the country. This decrease is attributable in great part to informative labeling and effective law enforcement. Because of certain deficiencies in the law itself as well as social and economic factors beyond statutory control, this group of substances continues to be a problem in certain areas among certain groups. Lye continues to be one of the most frequently offending agents among low-income groups in the South, where the home manufacture of soap is quite common. Several years ago pediatricians in North Carolina tried without success to have its sale for consumer use banned entirely in that state.

Paints, Cleansers, Cosmetics, and Miscellaneous Agents

Since paints, cleansers, cosmetics, and miscellaneous agents have much in common with regard to ingredients and labeling, we can consider them together. The labeling in none of these groups is required by federal legislation to reveal information concerning composition or hazards arising with their use or misuse. In those instances in which manufacturers supply such helpful information it is done voluntarily, in compliance with some industry code, or according to local regulations. For example, the American Standards Association issued a standard[5] limiting the lead content in paint for interior use in dwelling units or on furniture or toys. The amount must not exceed 1% of lead of the total weight of the contained solid.

Because of lack of declaration of components, especially the potentially harmful ones, this particular group of products presents some of the greatest problems. Among the items of concern are the solvents, including petroleum products, carbon tetrachloride, and benzene. The serious and fatal poisonings from the inhalation of cleaning fluids containing carbon tetrachloride prompted the New York City Health Department to add a new section to its sanitary code requiring that cleaning fluid containing carbon tetrachloride be prominently labeled together with warnings against its misuse. Later the departments of health of the state of New York and the city of New York jointly enacted amendments to their sanitary codes, requiring that hazardous substances in any product in general use be revealed on the label and adequate warnings provided against their misuse.

The question may arise why cosmetics are not included with drugs as controlled by the Food, Drug, and Cosmetic Act. Although the law protects the consumer from dangerous cosmetics under customary conditions of use and requires that the label bear a statement of quantity of contents and the name and address of the manufacturer or distributor, it does not require a declaration of ingredients.

Prevention and Control of Accidental Poisoning

The conviction that accidental poisoning can be prevented through education, adequate labeling, and continued attention to collection of accurate statistics on morbidity and mortality has encouraged health departments, medical societies, major insurance companies, the American Red Cross, the National Safety Council, and others to undertake protective measures.

Through the concerted efforts of the American Academy of Pediatrics and local health departments, poison control centers have been set up and are operating in 15 cities in Florida and the following other cities:

Albany, N. Y., Atlantic City, N. J., Baltimore, [Md.,] Boston, [Mass.,] Buffalo, [N. Y.,] Chicago, Denver, [Colo.,] Durham, N. C., Grand Rapids, Mich., Harrisburg, Pa., Indianapolis, [Ind.,] Kansas City, Mo., Lancaster, Pa., Louisville, Ky., Memphis, Tenn., Milwaukee, [Wis.,] Montclair, N. J., Newark, N. J., New Bedford, Mass., New York, Nutley, N. J., Oklahoma City, Phoenix, Ariz., Rochester, N. Y., Seattle, Springfield, Ill., Syracuse, N. Y., Washington, D. C., and Worcester, Mass.

Other cities are actively developing poison control centers. Through these centers the attending physician can obtain information concerning the composition of substances involved in poisonings as well as methods of treatment. In turn, he can contribute to the knowledge of substances that are accidentally ingested and acquaint parents with home-safety measures. As this program has progressed and extended nationwide, an awareness has developed of the need for a national center to furnish information to the physician concerning the composition of household articles, collect and evaluate reports of poisoning, and distribute information regarding preventive procedures.

The American Medical Association is devoting special attention to the correction of the accidental misuse of chemical agents found in and around the home through its Committee on Toxicology. The Committee has undertaken a five-point program to (1) encourage informative labeling and safe packaging; (2) stimulate laboratory and clinical research for antidotes; (3) standardize technical nomenclature; (4) develop criteria for evaluating hazardous substances; and (5) sponsor a sustained educational program.

The American Public Health Association has recently established a subcommittee on chemical poisons, which will concern itself with the role of organized public health activities in the prevention and control of accidental poisoning. It will study the problem in all age groups, and its activities will include case-finding, analysis of the factors involved in the etiology, studies of methods of treatment, and the development of a program of prevention and control.

As an informational guide to parents, physicians, hospitals, poison control centers, and others concerned with the prevention of accidental poisoning, the FDA has recently issued a circular titled Protect Your Family Against Poisoning. This provides a series of reminders regarding the handling and storage of drugs, poisons, and other household chemicals.

Summary

Throughout the country during the past five years, increased interest in poisoning in the home has produced considerable progress toward the solution of the problem. Much more cooperative effort must be expended, however, in (1) extending our knowledge as to the identity and nature of hazardous substances, in-

cluding methods of diagnosis and treatment of poisoning arising from them; (2) promoting safe labeling and packaging of household chemicals; (3) restricting from the home environment substances whose hazardous natures outweigh their usefulness; and (4) educating the consumer in the safe use and storage of all nonfood substances.

References

1. Vital Statistics of the United States, 1955, vol. 2. United States Department of Health, Education, and Welfare, National Office of Vital Statistics, to be published.

2. Rodman, M. J.: Survey of Potentially Harmful Household Products, J. Pediat. 46:171-181 (Feb.) 1955.

3. Federal Register, Oct. 15, 1955.

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5. American Standards Specifications to Minimize Hazards to Children from Residual Surface Coating Materials, American Standards Association, Sponsored by American Academy of Pediatrics, Approved Feb. 16, 1955.

45th NATIONAL SAFETY CONGRESS

MAKE YOUR reservations now with the Housing Bureau, National Safety Council, for the 45th National Safety Congress.

October 21-25, 1957, Chicago, Ill.

Home Safety Sessions will be at the Conrad Hilton Hotel.

Monday morning, Oct. 21.—National Safety Council, Annual Meeting.

Monday noon and afternoon, Oct. 21.—Meeting of Committee of National Organizations, Home Safety Conference.

5 p.m. Monday, Oct. 21.—Meeting of Inventory Committee, Home Safety Conference.

Monday evening, Oct. 21.—Home Safety General Session.

All day Tuesday, Oct. 22.—Home Safety Conference, Annual Meeting.

Wednesday morning, Oct. 23.—Home Safety General Session.

Wednesday afternoon, Oct. 23.—Home Safety General Session.

Wednesday evening, Oct. 23.—Banquet.

Thursday morning, Oct. 24.—Home Safety General Session.

Thursday afternoon, Oct. 24.—Home Safety General Session.

Thursday evening, Oct. 24.—Congress Party.

Award Entries Reveal Women's Activities

THERE IS NOTHING weak about the role the so-called weaker sex is playing in traffic safety—they are doing a man-size job.

That is the opinion of Miss Alice C. Mills, director of women's activities of the National Safety Council, who said that school safety programs, bicycle safety, and highway improvement seem to be the favorite projects of safety-minded women.

She said an analysis of entries in the 1956 Carol Lane Award program revealed that these three areas received the most attention, although activities were spread over a wide range of interests.

The Carol Lane Awards—named for the women's travel director of Shell Oil Co. and administered by the council through a Shell Oil grant—are presented annually to the three individual women and three women's or parents' organizations that have developed and directed the most effective traffic safety programs.

Women who have furthered traffic safety programs between June 15, 1956, and June 15, 1957, are eligible for 1957 Carol Lane Awards totaling $3,500, Miss Mills said.

The awards are the only national recognition given women for their contribution to the preservation of lives through traffic safety programs in their community or state.

They were established to reward women for work in traffic safety and to encourage other women to help make streets and highways safer.

Entries in the 1957 awards program should be mailed to Miss Mills at the National Safety Council, 425 North Michigan Avenue, Chicago 11, Ill., before midnight, June 15. Entry blanks and information about the awards also may be obtained from her.

CONFERENCE

30th Annual Maine State Safety Conf., Sept. 12-13, 1957, Marshall House, York Harbor, Maine; chm., Home Safety Sect.: Miss M. Lucille Nason, dir., Four County Tuberculosis Association, City Building, Rockland, Maine.

Film Directory to Be Biennial

THERE WILL BE no 1957 edition of the *National Directory of Safety Films.* Publication will be biennial, and the next edition is planned for midyear 1958. The 1956 *Directory* is still current and available for purchase. As they are brought to our attention, corrections and changes will be published.

Here are some corrections of source and film listings in the 1956 *National Directory of Safety Films.*

On page N-54 the address for source 17 should read Visual Education Service, National Council, Boy Scouts of America, New Brunswick, N. J. The address for source 20 should read British Information Services, 45 Rockefeller Plaza, New York 20, N. Y., and the address for source 59 should read National Film Board of Canada, P. O. Box 6100, 3255 Côte de Liesse Rd., Montreal 3, Quebec, Canada.

On page N-29, Section 44, source 45 should be deleted from the descriptions of the films *School Bus Safety: Part 1* and, *Part 2.* On page N-30 delete the description of the film *Miracle of Christmas.* The production is still available for distribution, but it is not a safety film.

on our DESK

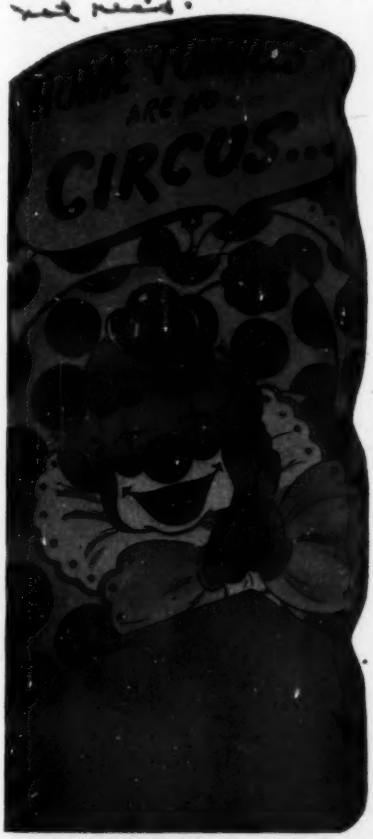
New Home Safety Leaflet

NOW AVAILABLE from the council is a new leaflet entitled *Home Tumbles Are No Circus . . .* Jocko, a friendly circus clown, uses colorful cartoons to illustrate how the safe use of ladders, adequate lighting, good housekeeping, safeguarding children, etc., can prevent home falls. There are 10 of these safety tips in this 12-page leaflet which is printed in four colors and die-cut to approximately 9 by 4 inches. Ample imprint space is allowed on the front cover, and a simple quiz on the back cover offers a "First Prize, A Safe Home."

Prices for this leaflet, published by the National Safety Council, are as follows: 1-9 copies, $.20 each; 10-99, $.13; 100-999, $.092; 1,000-4,999, $.072; 5,000-9,999, $.063; 10,000-19,999, $.057; 20,000 or more, $0.51; prices subject to 10 percent discount to National Safety Council members.

Other Leaflets

Let's Go! On a Safe Vacation is a 4-color, cartoon-style leaflet, 3⅞ by 8 inches, in which such topics as safe driving, swimming and boating, hiking, and safety around the home are covered. It is available from the National Safety Council at the following prices: single copies free; 10-99, $.10; 100-999, $.069; 1,000-4,999, $.052; 5,000-9,999, $.046; 10,000 to 19,999, $.043; 20,000 or more, $.04; prices subject to 10 percent discount to National Safety Council members.



New home safety leaflet.

Wet and Waterproof presents precautions concerning swimming and boating. It is a six-page folder, two-color, approximately 8½ by 3½ inches, and is Health Education Leaflet No. 3, published by the Bu. of Pub. Health, the Equitable Life Assurance Soc. of the U. S., 393 Seventh Avenue, New York 1, N. Y.

Your Family's Safety is a two-color leaflet illustrated cartoon-style. It is 5⅜ inches by 7¾ inches. On home safety for the family it takes up such factors as time, space, and traffic in the home. It is published by the Metropolitan Life Insurance Co., One Madison Avenue, New York 10, N. Y.

Traffic Safety Kit

A 1957-58 *Operation Safety Youth Traffic Safety Kit for High School Student Councils and Groups* is a new, improved version of an Operation Safety activities kit for high school student groups. The kit gives youth groups a set of tools for use in solving their own traffic problems and offers suggestions for tying student traffic safety efforts in with the nationwide "Back the Attack on Traffic Accidents" program.

The kit can be obtained from the National Safety Council at the following prices: 1-9 kits, $1.50 each; 10-99, $1.25; 100-999, $1.10; 1,000 to 4,999, $1; prices subject to 10 percent discount to National Safety Council members, schools, colleges, and public libraries.

Articles

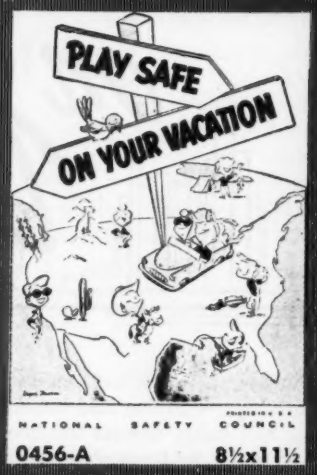
In the *Journal of the American Medical Association,* vol. 163, No. 15, pp. 1330-1348, April 13, 1957, the following articles on poisoning have been published: "Public Health Aspects of Poisoning," by Edward Press, M.P.H., M.D.; "How Toxic Is It?" by Robert E. Gosselin, M.D., Ph.D.; "Incidence of Injury With Pesticides," by Bernard E. Conley, Ph.D.; "Practical Management of Common Poisoning," by Jay M. Arena, M.D.; and "Manufacturer Looks at Child Poisoning," by John H. Foulger, M.D.

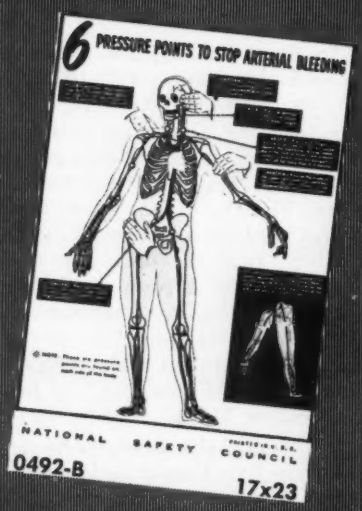
"A Remarkable Study in Storage Planning," by Curtiss Anderson and Mary Coughlin in the May 1957 issue of *Better Homes and Gardens,* pp. 210 ff., shows pictorially methods of arranging for storage of such household items as medicines, sewing materials, kitchen supplies, cleaning supplies, hand tools, and children's toys.

Mats

Free mats for a Home Safety Campaign are available from the Special Service Office, the Advertising Council, Inc., 425 North Michigan Avenue, Chicago 11, Ill. These advertisements are developed around a slogan about being a private eye for home safety. Two are on home safety and one on child safety. They are available to editors of news bulletins, house organs, etc.

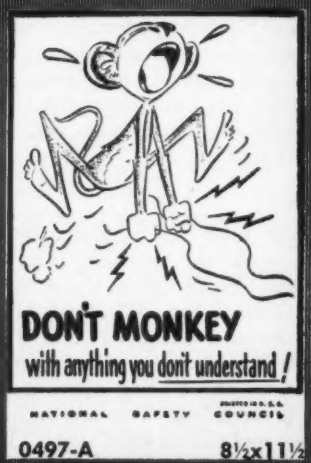
not used.





Some N.S.C. Posters

HERE is a selection of National Safety Council posters on vacation safety, first aid, etc. They are available at our usual prices listed in the 1957 Directory of Occupational Safety Posters published by the council.



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